

Electrical Merchandising

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The Promise of the Fixture Market

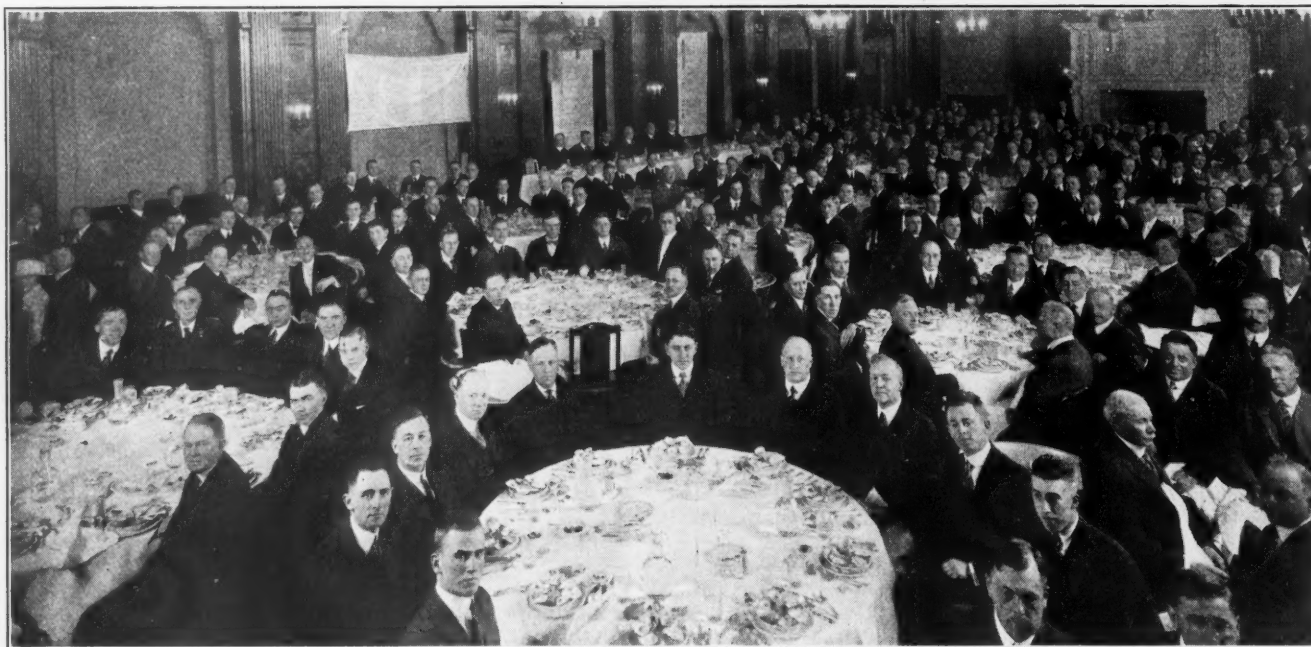
FOR YEARS we electrical men have called the fixture business a "hard game." Fixtures, we have said, are hard to design, hard to figure, hard to pack, hard to ship, hard to select, hard to stock, hard to show, and hard to sell. And all the time we have been quite overlooking the real trouble—the fact that they have been so hard to standardize, so hard to hang. The public has been baffled. That is the worst part of it. There has been no *current style* in fixtures to guide the home builder in buying. And when he buys, can he *hang* them? He can not.

There is great promise, however, for the electrical industry, in two new inspirations that have lately come into the fixture business. Through the progressive co-operation of the National Council of Lighting Fixture Manufacturers, the Lighting Fixture Dealers' Society of America and the Illuminating Glassware Guild, we are to see a great annual National Fixture Market inaugurated in Detroit, the week of Feb. 8, to establish standard fixture styles for 1920.

Again, several manufacturers are at work, we hear, developing the details of the "Hang a Fixture Like a Picture" idea, that has been suggested by ELECTRICAL MERCHANDISING. At the Fixture Market in February we hope this innovation will be shown—fixtures with a simple method of attachment and a standard plug to make the connection to a standard receptacle in wall or ceiling. It will be a fixture that a man or woman can take home and hang just as a picture would be hung.

There are some fifteen million houses in the U. S. A. still waiting for electric light. You need not shut your eyes to see the vision that these two new ideas in the fixture industry will bring to pass. They will bring impulse to the homes that wait unwired. They will bring encouragement to the other seven million wired homes to think of lighting equipment not as fixtures but as furniture—which it is.

Fixtures are style merchandise. But in the past fixture style has been adrift, unorganized. This merchandise has struggled with the blight of incompleteness and, therefore, failed in popular appeal. Now these rusty shackles are to be kicked off. The day of "Lighting Furniture" is at hand. The fixture market promises big things.



At a "Get-Together Dinner" of the California Electrical Co-operative Campaign, men of the electrical industry in the Far West discuss problems of mutual concern. In this gathering there are more than 350 men prominent in the electrical industry throughout the San Francisco Bay region and among these men interested in good merchandising will be found the leaders in the contractor-dealer movement of that district.

At the speakers' table beginning from left to right and going to the right may be seen L. H. Newbert, manager Commercial Department, Pacific Gas &

Electric Co., chairman of the advisory committee of the California Electrical Co-operative Campaign. Next appears A. E. Wishon, assistant general manager of the San Joaquin Light & Power Corporation, and president Pacific Coast Section, N. E. L. A. Then follows E. O. Edgerton, John A. Britton, vice-president and general manager, Pacific Gas & Electric Co., R. H. Ballard, vice-president, Southern California Edison Co., and president National Electric Light Association. This meeting was held in San Francisco on Nov. 15, 1919.

The Results of the California Better Merchandising Campaign

How the Co-operative Plan Has Worked to Bring into Existence New Electric Shops, Wide Newspaper Publicity, and a Spirit of Closer Harmony Between Central Stations, Jobbers and Contractor-Dealers

By ROBERT SIBLEY

Pacific Coast Editor of "Electrical Merchandising"
Editor of the "Journal of Electricity," San Francisco

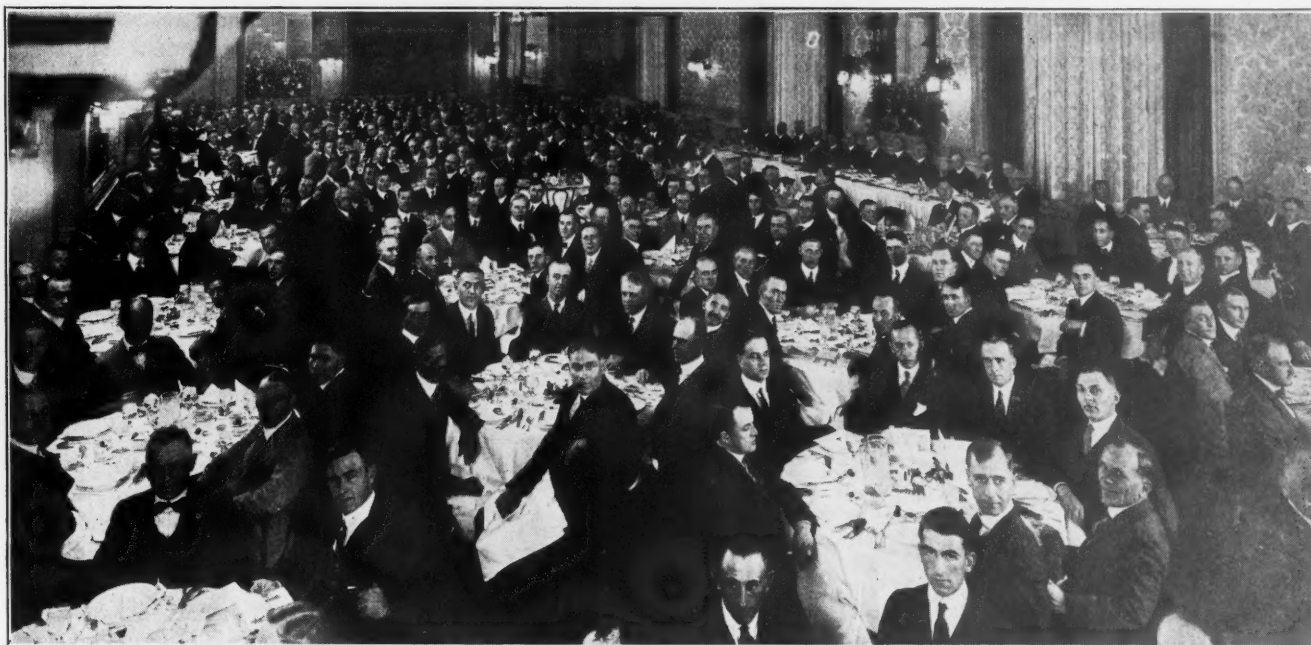
THE California Electrical Co-operative Campaign is no longer an experiment. Since its beginning in 1918, it has carried on its missionary work through every department of the electrical industry in California and may fairly lay claim to having been worth the money which has been put into it. The increased donations which have been forthcoming every year from central stations, jobbers, manufacturers and dealers alike are the surest evidence of the value of its work, but if any further evidence is needed it can be found in the record of new stores, remodeled stores and stores which have moved to a better location, which is

contained in the report just made by the chairman of the advisory committee.

The record of the co-operative campaign is a record of good feeling established between all branches of the industry in communities where such good feeling did not exist before its coming, it is a record of new ideas for the betterment of the relationships of the electrical industry and the public originated and put into practice, but more than all, it is a record of the concrete and steady improvement of the electrical retail stores of California. Today each prosperous community of California is served by an electrical store—or several electrical stores—

which are working in harmony with one another and in close co-operation with the local office of the power company and adequately meeting the needs of their respective communities.

Advertising has been encouraged, both among the central stations and the dealers themselves with the result that electrical pages are being established in newspapers throughout the state, where all electrical elements of the community are uniting their efforts to bring about a more effective broadside and reaping the benefits in more extensive space in the news columns devoted to electrical interests. Much success is reported in this line already.



And here is the big "Welcome Ballard Home" dinner that was held on Oct. 29 at the Alexandria Hotel in Los Angeles under the auspices of the Los Angeles Electrical Co-operative League. The dinner was attended by over four hundred men—men prominent not only in the electrical industry but in other walks of business and professional life of the West. At the speakers' table are A. E. Wishon, assistant general manager of the San Joaquin Light & Power Corporation, and president of the Pacific Coast Section, N. E. L. A., who was

toastmaster of the evening; R. H. Ballard, vice-president of the Southern California Edison Company and president N. E. L. A.; E. O. Edgerton, president of the California Railroad Commission; John Willis Baer, moderator of the Presbyterian General Assembly; and W. H. Onken, Jr., editor of *Electrical World*. A young lady, clad as Mercury, brought telegrams from time to time over the raised platform at the speakers desk, which added much in giving life and zest to the occasion.

The Los Angeles Gas & Electric Corporation has started an advertising campaign in three of the Los Angeles newspapers and is running one advertisement a week around which the dealers are grouping theirs. The Southern California Edison Company has made a special appropriation of \$2,000 for November and December to use in building up electrical pages in their territory outside of the city of Los Angeles. The Southern Sierras Power Company has agreed to use all of its advertising space to this end and the same policy is announced by the San Joaquin Light & Power Corporation.

The jobbers have promised to see that the "copy" of the contractor-dealers is of the first quality and some have intimated that they might aid the contractor-dealer financially in his advertising. The contractor-dealers themselves are enthusiastic over the plan and are running extensive advertisements of their own to tie in with that of the central stations.

In San Francisco the *Bulletin* has already started the idea of an electrical page. The Pacific Gas & Electric Company is to run in that paper one advertisement a week, around which those of the electrical contractor-dealers are to be grouped. Electrical pages are already appearing in Fresno and Bakersfield in the San Joaquin Valley.

A still more concrete evidence of the

success of the campaign is to be found in the records of major improvements which have recently been made for the betterment of electrical stores throughout the state. Fifty new stores have been started. Of these, the great majority have been opened by electrical contractors who have expanded into the contractor-dealer business and by solicitors who were formerly in the employ of the central stations or by salesmen of jobbers and manufacturers who have gone into the retail end of the business. In other words, the expansion has been within the industry rather than intrusion of outside elements into the game. The list of these new stores which are undertaking to extend the service of merchandising electric ware in California is here given:

NEW STORES

General Repair & Electric Company, San Francisco.
Fisher Electric Company, San Francisco.
Campanile Electric Company, Berkeley.
South Berkeley Electric Shop, Berkeley.
L. H. Bullock, Oakland.
Domestic Electric Appliance Company, Oakland.
D. C. Stanford, Oakland.
Charles J. Sengstacker, Pleasanton.
Electric Service Company, Antioch.
Rex Electric Company, San Anselmo.
Watts Electric Company, Burlingame.
F. X. Bodin, Sunnyvale.
Melrose Electric Company, Oakland.
Duane-Armstrong, Martinez.
J. W. Northedge, Chico

E. R. Murphy, Los Banos.
A. C. Sipe, Oakdale.
E. B. McKinley, Paso Robles.
The Appliance Shop, Stockton.
Bright Spot Electric Company, Stockton.
Sullivan Electric Company, Modesto.
Turner Hardware Company (electric department), Modesto.
Sterling Electric Company, Sacramento.
Advance Electric Shop, Los Angeles.
Broadway Electric Shop, Los Angeles.
Bullock's Electric Shop, Los Angeles.
Callaway Electric Shop, Los Angeles.
B. H. Evans, Los Angeles.
Fix-it Electric Shop, Los Angeles.
Gas & Electric Appliance Company, Los Angeles.
The Lamp Shop, Los Angeles.
Southwest Electric Company, Los Angeles.
F. E. Spencer, Los Angeles.
Holland Electric Shop, Anaheim.
Winder & Jones, Azusa.
William Coryell, Burbank.
Graham Electric Company, Calexico.
R. A. Lee, Colton.
The Electric Shop, Huntington Park.
Aeme Electric Company, Long Beach.
Sanders Electric Shop, Pasadena.
Werner & Tomlinson, San Jacinto.
Beemer's Electric Shop, Santa Ana.
Groninger Electric Service Company, Santa Ana.
Prest Electric Company, San Bernardino.
Electric Installation Company, Santa Barbara.
Gould's Electric Company, Santa Monica.
Santa Monica Electric Company, Santa Monica.
T. H. Armstrong, Santa Paula.
Hall & Bashore, Covina.

In addition, sixty-five stores have moved to better locations. This means that sixty-five stores have moved to

recently the San Francisco district has instituted a page in the *San Francisco Bulletin*. When it is realized that the cost of one issue amounts to \$400 per page, as in the instance of the newspapers in San Francisco, the extent and cost of the publicity campaign in California can be fully realized. As these pages go to press, information is received that papers in the Sacramento, San Bernardino, Santa Barbara, Santa Ana and Long Beach districts are to carry electrical pages, and now the drive is on to carry a page each week in every one of the 500 daily newspapers of California.

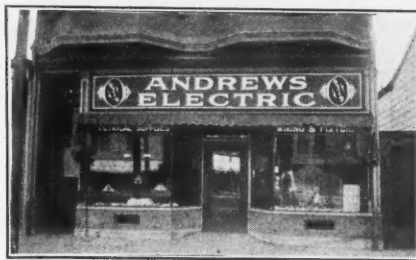
At the present time the advisory committee is making a determined effort to build up in every newspaper of importance in California an electrical page for the purpose of getting the "do-it-electrically" idea before the public through advertisements and reading matter. The secretary recently devoted three weeks to starting this campaign in the southern part of the state. He presented the subject to the central stations, manufacturers, jobbers and contractor-dealers—in all, a total of 500 persons, representing the territory south of the Tehachapi. All expressed themselves as desirous of seeing an electrical page established and of doing their part to bring it about. He also called on twenty of the larger newspapers whose advertising managers promised to do all they could to secure electrical pages through solicitation.

The publicity committee of the Pacific Coast Section, N.E.L.A. has undertaken to issue a regular press service which shall be furnished to contractor dealers or others requesting it, containing articles which may be furnished to the local newspapers. Much of this material is taken from the electrical magazines, together with important points brought out in electrical meetings and statistical data which may not have found its way into the press.

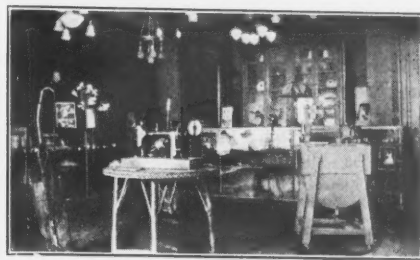
As W. H. Onken, Jr., editor of *Electrical World*, recently said:

"Any publicity campaign to be effective must be conceived and executed on a grand scale. Petty jealousies and narrow-mindedness must play no part in it. Frankness must be everywhere apparent. The primary object must be to develop the community and the state and not the particular business in which we are engaged. We must honestly believe in the righteousness of our cause and have faith to know that the community or state cannot advance

Outside and Inside Glimpses of New Electrical Stores Developed by the California Campaign



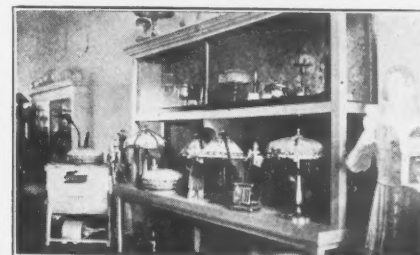
Andrews Electric Company, Elmhurst, has recently moved to a better location, nearer the center of town and in a much better building.



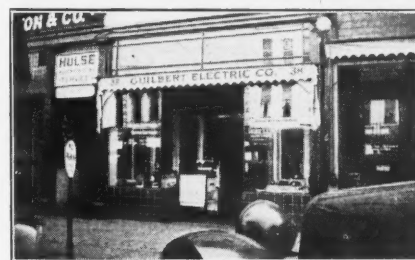
The interior of the Andrews' store is neat and open in appearance, the windows are attractive, and all shop work is done in a light room in the rear.



The store of the J. A. Foster Electric Company San Mateo, is attractively finished in gray paint with mahogany fittings.



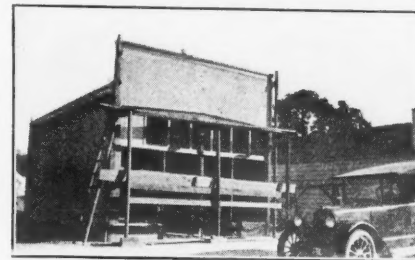
The new lamp display case with its attractive background is one of the major improvements which the Foster company has recently made. It is contemplating the early addition of a mezzanine floor.



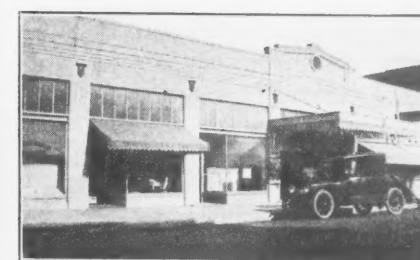
The store of the San Jose Electric Company, successors to Gilbert Electric Company, San Jose, has been remodelled throughout, jeweler's cases installed, and a wicker chair and small rug for vacuum cleaner demonstrations put in.



A lamp rack of an ingenious kind was installed, glass counters added and the store in general made most attractive and progressive in appearance. Eugene Kuehn is the proprietor.



This new store is being erected by F. X. Bodin in Sunnyvale, Cal. He has been doing contracting work from his farm home, but decided that the growth of his business required a separate shop and a store as well.



The Watts Electric Company has a new store recently opened in Burlingame, Cal., by Francis Watts. The location is a good one on the main street of the town, next door to a moving picture theater.

without pulling us with it. We must above all else be genuinely enthusiastic."

It is difficult indeed to appraise fully the tremendous impetus for electrical development that this vast publicity campaign means for the electrical industry in California. All branches of the industry—the manufacturer, the jobber, the central station and the contractor-dealer—are taking part in financing this activity. As a consequence, it means that the public will receive a clearer con-

ception of the magnificent service the central station and the contractor-dealer offer to the public and it means, too, that the method electrical, already instituted in the beautiful homes and flourishing industries of the great West to a degree not even approached anywhere else in the world, will be carried to still further planes of accomplishment. All honor and credit to the strong right arm of the California Electrical Co-operative Campaign!



The foot-candle meter can be taken into any illuminated interior—store, shop or office—and the intensity of lighting quickly measured. In this store it is a question of finding the amount of light falling on the counters. The foot-candle meter shows instantly, and indisputably, the exact intensity on the counter-tops over which customers examine goods.

The New Salesmanship in Lighting

By S. E. DOANE

Chief Engineer National Lamp Works, Cleveland, Ohio
President Illuminating Engineering Society

IF I WERE ASKED to classify salesmen in the lighting field, I would unhesitatingly divide them into two classes: First, salesmen of the old order who sell lamps, sockets, wire, kilowatt-hours, etc., in the same manner that the grocery salesman sells sugar and pepper, assuming a sufficient knowledge on the part of the customer as to the use of his wares; and second, salesmen who sell illumination. I will not elaborate on the distinction between these two classes of salesmen. Our interest is centered on the latter type. The man who is awake to the trend of the times is selling illumination. More specifically, he is selling foot-candles—higher intensities of illumination with proper consideration for glare, direction, and quality of light.

WHAT IS A FOOT-CANDLE?

I hope that the mention of foot-candles will not give rise in the reader's mind to the impression too common in the past, namely, that of a mathematical something defined so and so and illustrated with such and such diagrams. We can forget all of that. It is the best watchword in the selling of lighting that we have ever had, and we need

be no more interested in its exact definition than in the definition of the ampere. Not one practical electrical man in a hundred could off-hand give an accurate definition of an ampere. He does not need to—he knows what an ampere is and what it will do. All we need to know about a foot-candle is that it is a unit to measure illumination "down here," on our desk, on our lathe, or on the counter in our store.

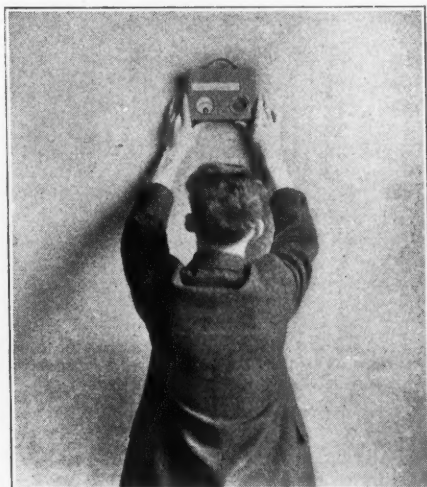


S. E. DOANE.

Men in the industry speak of a new era in lighting; they are not alone in their recognition of the fact that lighting is assuming a more important rôle in the present order of things. Safety engineers are thinking in terms of foot-candles. Production engineers are talking foot-candles. Department stores, even, are showing interest in the fact that illumination is something that can be measured and, reversing the line of thought, something that can be definitely specified with the knowledge that definite results will follow. The alert salesman of anything that has to do with lighting, be it fuses, sockets or lamps, is already preparing himself to sell foot-candles, while the other fellow is liable to find himself in the order-taking class as regards foot-candles and sooner or later wake up to wonder what it is all about.

GLARE IS ACTUALLY HARMFUL

The first need at the present time is for everybody to appreciate the fact that there is such a thing as good lighting, and that it can be obtained by the observations of a few fairly simple principles. We must realize that glare is something more than a technicality,



Illumination intensities on vertical or horizontal planes, or on working planes at any angle, can be measured with equal ease and convenience by the foot-candle meter.

but rather, that it is actually harmful and that if not properly prevented it is a barrier in the way of selling higher intensities of illumination. We must appreciate that directional value of light is something more than simply an interesting subject for illuminating engineers to discuss, and that color quality of light bears a certain relation to the satisfactoriness of an installation. We must, above all, get away from sizing up a lighting installation by looking up at the ceiling. We must accustom ourselves to look at the desk top and to say with some degree of accuracy that it looks even like 10 foot-candles.

GETTING "SOLD ON THE BIG IDEA"

All these subjects are well covered in publications which are readily available, and while they may seem technical and uninteresting to the man who has not been sold on the big idea, as a matter of fact any one of these subjects is no more technical than the carburetor on an automobile. Just as the motorist gladly will put up with, and even enjoy studying, the technicalities of carburetion for the sake of obtaining a smooth running, powerful engine, so the lighting man must be wrapped up in the importance of the items I have mentioned for the sake of obtaining a productive intensity industrial lighting installation or a profitable commercial lighting installation. I have no fear that this knowledge will not be acquired, once the need is genuinely felt.

Illumination is a thing that is measurable. Strange to say, this fact is not appreciated by the layman. Every salesman who sells light should carry a foot-candle meter. It is a little in-

strument no bigger than a small cigar box. You set it on the work bench, lathe, counter, or wherever you want to measure illumination, turn a little knob to a fixed point, and read the illumination. It is literally as simple as that. The little knob operates a rheostat by means of which the voltage on the standard lamp in the instrument is regulated. After making this one adjustment, which is less of an operation than the focusing of a pair of opera glasses, the foot-candles of illumination are read just as directly as you read temperature on a thermometer or weight on a grocer's scale.

If the reader of this article is the salesman I assume him to be, it is not necessary for me to point out the commercial possibilities of this instrument as a means of selling better illumination, and by selling better illumination, of also selling lamps, reflectors, wire, fuses, switches, switchboards and central station generators. So important do I consider the foot-candle meter as a sales instrument that, while I have not discussed it at length here, I have included a number of illustrations of it in actual use.

There is no single standard of illumination any more than there is a single size of motor that can be used to drive any type or size of lathe. This



Measuring the intensity of illumination on a desk, with the operator in the working position. Ten foot-candles is a good average intensity to strive for in office installations.

also is a fact not generally appreciated. An intensity of 3 or 4 foot-candles may be adequate on a counter in a store where white goods are on display, while an intensity of 10 or 12 foot-candles may be needed if the merchandise is dark in color. A few simple experiments on the part of the reader examining the texture of different fabrics will be more convincing on this score than anything further I might say here.



"The foot-candle-meter shows you have only 3 foot-candles here; you ought to have at least 10. Jones across the way has 12."

With the handy little instrument shown, the light intensity anywhere can be measured by anyone, at any time. Shop managers who have taken the cue and increased their lighting to higher intensities, have seen the result in increased production. In one shop where the intensity was raised from 3 foot-candles to 12 foot-candles at an increased operating expense of 1 per cent of the payroll, the increase in production resulting was 10 per cent.



Anyone can learn how to operate a foot-candle meter in one minute's handling of the instrument. First the rheostat arm is turned until the voltmeter needle lines up with the arrow on the scale. (This insures a fixed predetermined voltage across the small battery-operated lamp inside the meter, bringing it up to standard brilliancy.) Some of the grease spots on the illumination scale then appear brighter and some darker than the white cardboard of the screen itself. At the point where the grease spots are identical in brightness with the brightness of the surrounding cardboard, the intensity of illumination is read in foot-candles.

We must cultivate the habit of thinking foot-candles. It is a common practice in country stores, when a farmer brings in a roll of butter, for the clerk to "heft" it and estimate its weight before placing it on the scales. He takes pride in his ability to estimate weight, for a knowledge of weights and measures is part of his stock in trade. Knowledge of intensities is part of the lighting salesman's stock in trade. In talking to salesmen on this phase of

the subject, I have not as a rule had to go further into the subject than to make a suggestion on the advantage of being able to go into a man's establishment and after looking around to say, "Why you have only 3 or 4 foot-candles here—you ought to have at least 10; Jones across the way has 12," and then to check up what you have said with a measuring instrument such as the foot-candle meter. The man may not know at first what you are talking about, but he is convinced that *you* know.

The insurance companies and, in a number of states, the industrial commissions say to the manufacturer that he should have lighting of a certain standard to insure safety of his employees. From another source he learns that increased intensities of illumination will enable him to increase the production of his plant. But all this information comes to him in the language of foot-candles. There is at present no one to whom he can turn for foot-candles except here and there an illuminating engineer and the lighting salesman; there is no class of installation men as yet available for giving him the foot-candles he wants.

THE "LIGHTING JOURNEYMAN"

I have every confidence that just as the growth of the automobile in-



The foot-candle meter is manufactured without profit and is sold through all the lamp companies, and through jobbers and dealers without profit of any kind. The price, with carrying case, is \$25, wherever purchased. Although handled without profit, the use of the foot-candle meter may be depended upon to secure so much better illumination, with resulting large sales of lamps, that every lamp distributor, jobber and dealer will want to push its introduction and use by all who handle lighting installations of any size.

dustry automatically developed the garage repair man, so this new conception of light as a profitable investment is going to bring about the development of a journeyman who can install illumination. Sanitary engineering has its plumber, electrical engineering has its electrician, mechanical engineering has its mechanic, but in illuminating engineering we do not as yet have a corresponding class of men who can handle light intelligently. The salesman and the electrical contractor must fill in the gap between the illuminating engineer and the customer until such a class of men becomes available.

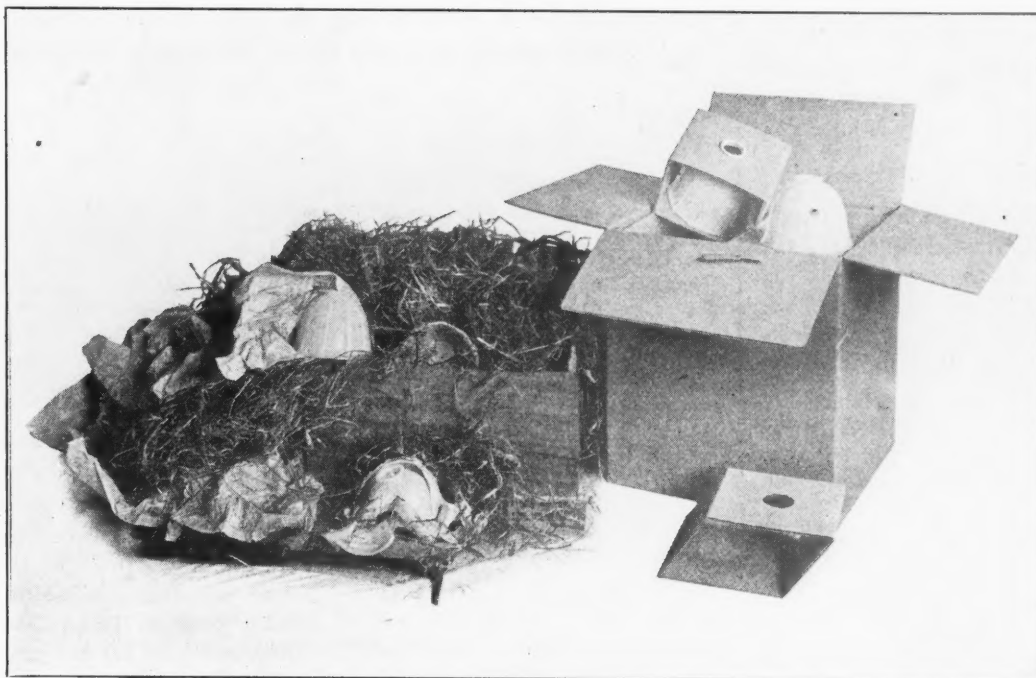
In this brief article I have deliberately left a lot to imagination. To summarize briefly the facts that I believe should become almost a religion to lighting men: Lighting has been definitely removed from the janitor service class in industrial plants as a result of tests that have shown that it is an agency which will increase production to an extent out of all proportion to its cost.

Three or four times the light we have been accustomed to selling in the past is generally justified. The same is true of other fields of lighting. A survey has just come to my attention which indicates that the number of traffic accidents in our large cities is directly dependent upon the amount of light present. People who have only a secondary interest in lighting are voicing their appreciation of the fact that lighting holds unrealized possibilities for comfort, welfare, and profit. The man who sells higher standards of illumination, as I have said before, sells also lamps, sockets, reflectors, wire, fuses, switchboards, and central station generators.

Portable Lamps Can Be the "Beauty Spot" in Your Store, Too!



More and more dealers, nowadays, are coming to appreciate the merchandising value of the art element in their store arrangements and displays. They know that it is the ever-changing beautiful, the new, the artistic qualities of what has come to be known as "style merchandising," that will draw the customer again and again to the same store. Portable lamps, as the most fruitful kind of "style merchandise," offer endless opportunities to the progressive dealer to achieve that combination of grace, beauty and solid dignity which provides a permanent attraction for the electrical shop. This picture shows the "beauty spot" in the electrical store of the Commonwealth Edison Company, Chicago.



Here's the difference between a wooden box bedded with straw and a corrugated board carton. The only tool needed to open a carton is a pen knife: a box requires hammer, axe or nail puller. The carton nests are neat and can be opened up in your showroom without making any muss; the straw and packing of the box is a mess of litter.

Better Packing for Lighting Glassware

Some Facts Concerning the Movement for Carton Glassware Shipments, Which the Lighting Fixture Dealers Society of America Has Been Instrumental in Developing, as a Practical Economy in the Trade

WHAT'S ALL THIS TALK about packing glassware in cartons? Does it not mean another boost in prices? And if it does, why not stick to the good, old, serviceable barrels that we've always used? And how about breakage?—isn't glass in a cardboard box a lot more easily smashed than glass that is bedded in straw and well coopered in solid wood?

These questions, and many more to the same effect, induced **ELECTRICAL MERCHANDISING** to investigate the new method for its readers—to examine the facts and figures, to weigh the evidence. And, as a result, **ELECTRICAL MERCHANDISING** is "sold" on the proposition that carton packing in many cases will save money, time and trouble for those who make, wholesale and install illuminating glassware.—EDITOR.

TO begin with, the main object in carton packing is economy—of money, of labor and of time. And when we speak of economy we do not mean necessarily the first cost in actual cash—we mean the *total* cost. The price of a thing is not always an index to its value. And the value is not always to be figured in dollars and cents.

Some of the new cartons used in packing illuminating glassware today cost more than barrel packing—if you look only at the item "packing" that appears on the manufacturers' invoices. But if you look deeper—if you figure the lost time that breakage sometimes costs—if you figure comparative freight,

express and cartage charges—if you will estimate the expense of handling, cleaning, repacking, storage space, the fire hazard inseparable from the handling of old straw and barrels, the exasperation and delays incident to breakage claims, and a few other incidentals that eat profits without appearing under the head of "packing"—if you will delve into these items and ascribe the right share of them to the ancient and honorable barrel, you too will probably line up in favor of the carton as the best means for packing glassware.

Let us consider first the matter of breakage. The records of the glass manufacturers show that normal break-

age varies between 5 and 8 per cent. Theoretically the cost of such breakage falls on the transportation company, but in practice the money so recovered represents only a small part of the actual loss.

BREAKAGE IN BARRELS CANNOT BE DISCOVERED UNTIL UNPACKED

Unless a barrel gets extremely brutal handling, the fact does not show on the surface, and so barrels are ordinarily receipted for as being in good order. This means that when breakage is later discovered there is a long wrangle for settlement, because transportation company claim clerks stand pat on the "good order" receipt and make it as hard as possible for the claimant to collect.

But careless handling of a carton is apparent at a glance; further, breakage in a carton is immediately detected because the loose glass will rattle at the slightest shake. So at the very moment of receipt the carton has this advantage,

that it enables the consignee to detect breakage without opening the container, and he automatically receipts for it in such form that his record is kept clear for the quick recovery of his claim.

SOME STRAW-PACKING TROUBLES

Again, where heavy pieces are packed in barrels with straw or similar bedding, the breakage of one piece loosens the entire contents, gives play to the remaining pieces and commonly results in additional damage. And this is almost inevitable where goods are kept in the dealer's or jobber's stock for a few weeks before reshipment. In such case the straw dries out to such an extent that barrels, the tops of which had to be wedged down in original packing, will be found to have as much as 6 in. of air space after a month's storage in a hot dry room. Plainly such an amount of play means a high percentage of breakage.

In a properly designed carton this risk is minimized. The clever interlocking of corrugated board holds each piece of glass in its place regardless of whether any is broken, and no play inside the box can occur.

The smaller, lighter and obviously less rugged carton gets gentler treatment by freight handlers and carters. One commonly sees a barrel dropped from the tail of the wagon and rolled to its destination. That is the easy and ordinary

Some Figures on the Saving in Cost on Carton-packed Shipments of Glassware, Over Barrelled Shipments

From Monaca, Pa., to	Type of Glassware	Cost of Barrel, Each	Cost of Carton, Each	Weight in Barrel, Each	Weight in Carton, Each	Express Rate per Hundred-weight	Cost to Ship in Barrel	Cost to Ship in Carton	Net Saving Including Package
Harrisburg...	14-in. Ace	\$0.417	\$0.45	20 lb.	8 lb.	\$1.81	\$0.362	\$0.1448	\$0.1842 each
Baltimore...	17-in. Ace	0.625	0.55	27½ lb.	10 lb.	1.81	0.49775	0.181	0.39175 each
Syracuse...	20-in. Ace	0.875	0.85	37½ lb.	16 lb.	1.81	0.67875	0.2896	0.41415 each
Indianapolis...	8-in. Shade	0.625	0.75	35 lb.	25 lb.	1.81	0.6335	0.4525	0.156 dozen
New York...	14-in. Ace	\$0.417	\$0.45	20 lb.	8 lb.	\$2.03	\$0.406	\$0.1624	\$0.21 each
Albany...	17-in. Ace	0.625	0.55	27½ lb.	10 lb.	2.03	0.55825	0.203	0.43 each
	20-in. Ace	0.875	0.85	37½ lb.	16 lb.	2.03	0.76125	0.3248	0.46145 each
	8-in. Shade	0.625	0.75	35 lb.	25 lb.	2.03	0.7105	0.5075	0.078 dozen
Cincinnati...	14-in. Ace	\$0.417	\$0.45	20 lb.	8 lb.	\$1.54	\$0.308	\$0.1232	\$0.1518 each
Detroit...	17-in. Ace	0.625	0.55	27½ lb.	10 lb.	1.54	0.5235	0.154	0.4445 each
Buffalo...	20-in. Ace	0.875	0.85	37½ lb.	16 lb.	1.54	0.5775	0.2464	0.3561 each
	8-in. Shade	0.625	0.75	35 lb.	25 lb.	1.54	0.539	0.385	0.139 dozen

From information compiled at the Monaca, Pa., factory of the Ivanhoe-Regent works for shipments to typical destination points

method of handling containers of that kind. The carton is of a size and weight convenient to carry.

THE WORST LOSS IS THAT OF TIME

But the mere destruction of glass in transportation is not by any means the chief loss due to breakage. The loss of time, delays in the settlement of bills, annoyance to customers—these are of even more importance.

Suppose we have an important bank equipment to complete and when the glass arrives for the job, several large bowls are broken. A wire to the factory reveals that they have no more of that particular piece in stock, and they will not promise any definite day of delivery

for the replacements. As conditions exist today, it may be three, four, or even five months before the breakage is made good; in the meantime, the bank refuses to pay for any part of the job, or it pays and takes every occasion for nagging and "riding." In the meantime, also, the president of the bank

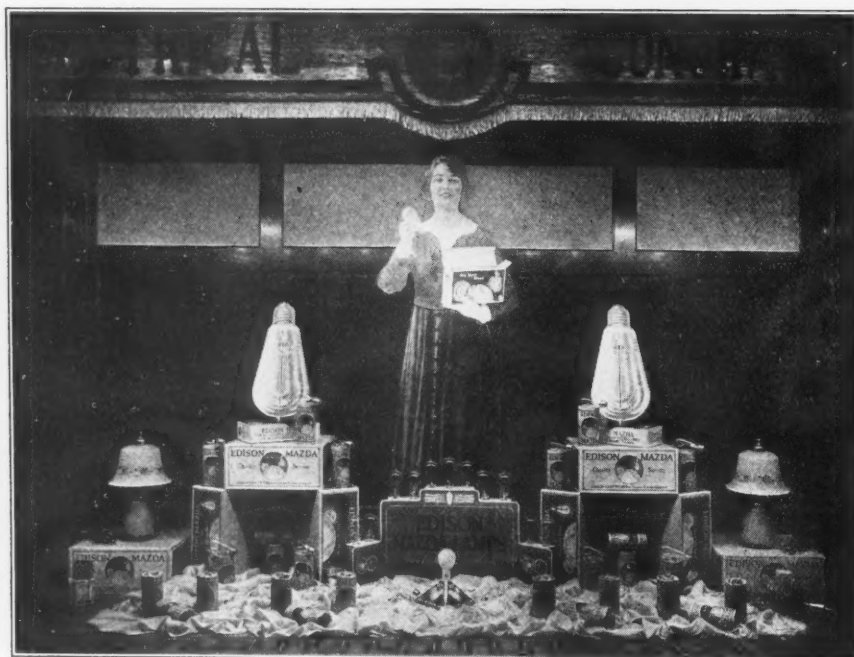


A box of candy could not be more attractive nor easier to open than this carton containing a Duplexalite. And as for packing—well, the "lite" has it on the candy.

has a new home nearing completion which we expect to equip, but the business goes to a competitor who is smart enough to talk about his promptness in completing deliveries of agreed equipment. A lot of business so lost is directly chargeable to "breakage."

BREAKAGE IN THE DEALER'S OWN STOCKROOM

Breakage even after the glass is in the dealer's stock is a considerable item. Big bowls are ordinarily taken out to jobs unprotected, carried from wagon to the unfinished building and laid on the floor. Along comes a workman with a ladder, and—whang! Or some clumsy apprentice stumbles, and—whang! It's a marvel that more is not smashed in such ways. With carton packing, this is avoided because the glassware is delivered to the job in its original containers and remains safe and clean until ready to be hung. Not only is breakage avoided but the expense and trouble of cleaning the glassware for the final inspection of the customer is an expense item which carton packing wholly eliminates.



Whether it is the packing of a complete fixture or a single lamp, careful study is everywhere being given to the problems of better carton wrapping. This picture shows the latest development in packing Mazda lamps—the individual-carton idea developed by the Edison Lamp Works of Harrison, N. J. Each lamp is inserted in a separate protective container attractively lithographed. Paper extensions at the ends of the container are then twisted inside, about the lamp, cushioning it at the ends, while the corrugated container protects its sides. Similar individual lamp cartons have just been adopted by the Westinghouse Lamp Company, Bloomfield, N. J.



Compare the convenience and compactness of this desk portable, snugly encoined in its well-fitting carton, with the awkward package which any form of wrapping would give.

Experts assure us that with proper carton packing, breakage will be cut in half, at the very least. Two per cent is the figure finally promised for this method against 5 to 8 per cent as at present.

HOW THE GOODS ARE PACKED AT THE FACTORY

The labor element in glass packing is important. Present packing is done by men paid on a piece-work basis in most of the factories. The result of this basis is a tendency to skimp and hurry. But cartons must be packed in accordance with the original package design and construction, which insures that the work is done "just so." The result, plainly, is less probability of breakage, and because the cartons hold a definite number of pieces the count is always accurate.

There is another factor in this labor question: packers under the present system habitually dodge the handling of difficult pieces. You can't blame them for that. So long as there are plenty of orders in the shipping room that call for easy packing which can be done at high speed and earn the maximum pay, why should these packers reach for difficult, low-paying work? The answer is that they don't, and the result is that your order calling for some of this "hard" packing lies around the shipping room sometimes four or five days, delaying your job, annoying your customer, delaying your date of payment, adding to your overhead and gray hairs.

It is believed that carton packing will result in the jobbers re-establishing themselves in a large way as distributors of illuminating glassware. Under the old packing system, a jobber could not make money on lighting glassware with

A Summary of Advantages of Proper Carton Packing of Glassware

Safety

If one piece breaks, the rest of package is unaffected.
Packing cannot work away and allow glass to touch.
Smaller, lighter packages insured gentler handling.
Fire risk of loose straw and wood eliminated.
Accident risk due to protruding nails and to splinters eliminated.

Convenience

Smaller stock room space.
Less broken packages, due to unit or small number packing.
Stockroom not cluttered with straw, loose boards, empty barrels and boxes.
Glass does not need recleaning.
Glass may be kept in stock in package and reshipped, due to unit package.
Stock easy to check.

Economy

Reduced freight, express and cartage charges, due to reduction in weight of package.
Reduced storage space.
Reduced handling cost, due to elimination of cleaning and repacking.
Reduced breakage claims.
Reduced cost of handling empty containers and packing.

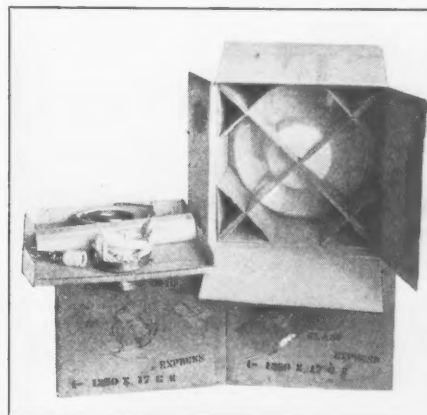
Service

The glass on the job when it is wanted.
Less waiting for replacement of breakage.
No dirty glass and no breakage due to handling.
Retail trade handled promptly as glass is always ready for shipment from the stockroom.
Better appearance of packages.

less than a 30 per cent differential. The breakage, cost of repacking, and labor waste made the line an expensive nuisance. But jobbers today handle



Designing a carton which will support the weight of an assembled unit and at the same time withstand the strain and stress of shipment is a task worthy of the best engineering brains. This pen sketch indicates the standard design which the Luminous Unit Company has worked out.



L. C. Doane, the Ivanhoe-Regent man who designed this box, is an engineer and he did not forget that fact when he attacked the box-making job. Ample space between the glass and the outside wall of the cartons, corner braces which can neither buckle nor slip, the interlocking of units within the cases to avoid play even when the individual pieces of glass might be broken, avoidance of two pieces of glass touching or straining each other, were all basic requirements of this Ivanhoe-Ace carton. The metal pieces and hanging gear are all sealed into the package so that there can be no question of losing small parts when taking the unit from the dealer's stock to the job.

lighting units which are packed in cartons—Brascolites, the Ivanhoe Ace, the Four-in-One and many others. Why should they not go a step farther and handle reasonably complete lines of glassware for standard service which can be sold widely, if that material is so packed that reshipment from their warehouses is as simple and easy as sending out a case of lamps? The proposition then simmers down to a question of turnover, and it is obvious that well-selected lighting glassware in unit or small quantity packages will turn as briskly as many other items which jobbers deem indispensable. This means an advantage to the trade which can be measured definitely in cash and convenience.

Finally, there is the actual money-saving that is immediate and tangible.

The table on page 280 of transportation rates which has been worked out for one factory in Pennsylvania is self-explanatory. Of course it could be carried out indefinitely and to cover every rate from the minimum to the farthest point in the country, but the few high spots therein touched will serve to convey the argument.

Not all carton packing is an improvement. The mere fact that an article is inclosed in corrugated board instead of wood is no guarantee that the shipper has solved the perplexing problem. But if the requirements already outlined are met in the design of all corrugated board cartons, there is no doubt that this method of packing has overwhelming advantages over the ancient barrel of straw.

Frueauff—The Man Himself

When a Man Keeps Right on Making Good in 138 Top-of-the-Ladder Jobs Every Day He is Surely Worth Some Thought—This Little Study of Frank Frueauff Reveals the Multi-Director Who Was a Boy Meter Reader Only Yesterday

First Article in a Series of "Personal Efficiency" Studies

By EARL E. WHITEHORNE

LETTERS from readers of ELECTRICAL MERCHANDISING indicate that the question of improving "personal efficiency" of themselves and their employees, is receiving the earnest thought of electrical business men everywhere. Now, just what personal efficiency means is hard to say, but it must be in part, a quality that helps a man to make good in a big way in a big job. Surely, therefore, a man who has made good in a big way in some 138 big jobs must be personally efficient to a high degree, and his ways worth looking into. We have, therefore, asked Mr. Whitehorne to give us a little "close-up" of Frank W. Frueauff, who has been called "the busiest man in America," because he is director in more corporations than any other son of Adam. Let Mr. Whitehorne show you what he is and looks like.—THE EDITOR..

IF YOU WILL open that fat little book, the New York Directory of Directors, and turn to the F's and hunt down that curious combination of letters that spells Frueauff, you will see something there that, though you may have heard of it a dozen times, will make your stare. Frank W. Frueauff is down as a director in 138 companies—one hundred and thirty-eight, mind you—and the list of them fills two full pages in the book. Imagine it! One man he is—one regular human man, who sits in a regular chair, at a regular desk, with only the regular clock to make time for him to work in, and yet he has 138 jobs. One of them alone, you would think, is as much as he could hold in his two hands. For he is partner in Henry L. Doherty Company, an organization of 18,000 trained workers, operating electrical and other utility properties in 350 communities with an investment of \$350,000,000. But on top of that there is this list of other jobs that fills the two pages in the book. How does he do it?

OUR MENTAL PICTURE OF WHAT A MULTI-DIRECTOR MUST BE

Somehow, we're apt to think when a man is director in a lot of companies, that he must be lined with gold and have it pretty soft. We have a picture of some born-rich, high-browed chap who keeps his money in a lot of banks, where, to kid him along, they have made him a director to succeed his old man. And

on the second Thursday of each month, we imagine, he rolls down in his purring Packard and swaggers in to the board meeting all done up in a fur-lined coat, pearl spats, and Malacca stick. Well, that may work first rate in three or four places, if you get started right. But when it comes to 138 separate corporations—and these companies are central stations, gas works, street railways, water systems and oil producing properties—No! Your imagination won't stretch that far. It is inconceivable that any man could become a factor in so many enterprises unless those enterprises needed him and wanted him, and unless he had done things in his life that made them want him, and continued to do things that made them keep him a director, on the job in some way, for some purpose. The wonder of it is both that any man could ever have been wanted by so many corporations and that he, personally, should have the courage and capacity to attempt to serve them all. What kind of a man is this Frank Frueauff, anyway? I'll give you my first impression of him.

Some thirteen years ago, when I was brand new and grass green in the electrical industry, just raw stuff off a high stool in a New York bank, I took a trip out west for a chap who thought he had something clever in an electrical device. I called on the central stations all the way to Denver and back and saw a lot of pretty landscapes and got no orders—but that's a different tale. I

spent a week in Denver, however, during a convention of the N. E. L. A., and the first place I called was at the office of the Denver Gas & Electric Company. I asked for the general manager. They pointed to a door and in I went. I sort of expected some oldish man, very busy, who would pucker his brow at me and be polite but nothing more. I found a young chap, rather slight, medium height, reddish hair, blue eyes, looking about my own age, though he was really a little older. It was Frank Frueauff, and he greeted me as though I were the chap he had been waiting for. You might have thought they were giving the convention for me.

He shook hands strong and friendly. He smiled as though he liked it. He told me to make his office my headquarters, and if I wanted anything to come to him. And I did. I guess I steered a dozen conventioners into that office of his during the next three days, just because he was so friendly and I liked him so and wanted some new acquaintance to meet him. Always he was just the same, cordial and friendly, with apparently nothing to do but play the host. And not a one of us knew what this Frank Frueauff already had achieved while we were dubbing along, or what a steady climbing path there lay before him. He had already rolled up a score that the average man would think entitled him to a place of honor and great respect. And he hadn't really started. Listen to the romance of this record.

EARNED HIS OWN LIVING AS A BOY

Frueauff was born in a small town in Pennsylvania, but in a few years his parents tracked out to Leadville, Col., then still a mining camp with all the atmosphere and action that would



Frank W. Frueauff, an electrical man who is a director in one hundred and thirty-eight different companies, and whose remarkable "personal efficiency" has led us to make him the subject of this first article in ELECTRICAL MERCHANDISING's "personal efficiency" series.

go to make a thriller in the movies. He lived there a while and got some schooling in a rough and ready way, for there was work to do. Frueauff's father died before long—he was a lawyer in Leadville, and Frank started his business career as a newsboy right there. Leadville was no place for mollycoddling. Folks had to rustle. And Frueauff was earning his living at an age when the average boy is still trying to get his mother to put his rubbers on for him. He was self-reliant, busy and productive from the start. He had to be. And so these qualities went deep into his nature.

A little later the family went to Denver, and young Frank got him a regular job with the electric light company. He began as a meter reader. Frueauff was successful as a meter reader, just as he had been successful at selling papers, just as he now is successful as a director in 138 corporations. He read his meters well, and as a result he got a better job and steadily progressed one step after another until he worked his way through the various departments of the Denver Gas & Electric Company and became its general manager at the age of thirty, just thirteen

years after he had landed his first job as meter reader. And he made good as general manager in the regular Frueauff way, because by the time he was G. M. he knew the central station business from the inside out. He based his decisions as a general manager on his own personal knowledge and experience in working through the business from the bottom up.

In the meantime, however, something else had happened. Henry L. Doherty had gone from the West to Wall Street and was doing big things in the development and operation of public utility properties. He also had started his career as a newsboy, in Columbus, Ohio. He also had worked up from the bottom in the central station game. Doherty was on the lookout for men and naturally was not long in discovering Frueauff. Here was another young human dynamo, he found, apparently bending all his energy to his own particular job. And one day Frueauff became the partner in the great firm of Henry L. Doherty & Company, and moved east to work with Doherty, who, as everybody knows, is the head of the Cities Service Company, the largest independent producer

of refinable oil in the world, and organizer and operator of utility properties scattered all across the land, as well as scientist, inventor and financier. Frank Frueauff is his only partner, the executive head of all the Doherty interests, one of the big successful men of America, and doing it all cheerfully, quietly, comfortably in the regular Frueauff way.

WHAT IS THIS REGULAR FRUEAUFF WAY?

In spite of the fact that the word's worn out, Frueauff is a man who, you can say, is organized for efficiency. He works easily—that is, without apparent effort—but he works hard, with intense concentration, purpose, determination and decision. To his office at 60 Wall Street come an endless procession of problems pertaining to the operation and administration of the many enterprises that he guides. For Frueauff is the directing executive head of the entire organization. The chiefs of all departments report to him. No important move is made in any of the Doherty properties without his approval. His days are one long succession of decisions, made quickly with a snap,

yet weighed with close scrutiny and keen analysis, yet without delay.

For Frueauff has a system in these things. When he thinks, he thinks hard. When he works, he works hard. And when he quits work and goes home at night, he quits. He is not one of the tired-business-man type that carries the office back and forth in his limousine or train. When he goes home, he goes home and belongs to his family, and he applies the evening no less intelligently to the enjoyment of home, than he has applied the day to the enjoyment of work.

The man seems to be thoroughly consistent. Drop in unexpectedly on Frueauff, and, unless he is tied up with some engagement that he cannot leave, you will see him. He is simple in manner, cordial and friendly. No one hesitates to approach him on any errand. But the manner in which he listens, questions and decides, is quick, keen and cold—in the sense that it is analytical in a sort of an abstract way. You get your answer, your decision and you get it quick, in the friendliest kind of good humor with perfect informal courtesy, but your question is to be answered and it must be answered quickly, for a few dozen of those 138 companies of his are probably crowding around trying to ask a lot of other questions and the clock is ticking.

That's Frueauff. That's the man. He has organized himself that way—for getting things done and done right and done soon, pleasantly, satisfactorily and profitably. He isn't a long hour man. It isn't necessary, for his work is so systematized that everything comes to him ship-shape and ready, without a lot of loose ends hanging down that he has got to gather up before his mind can wrap around it. He works intensely, but when he quits, he quits. The character, the method and the purpose are there just the same, however, and he takes care of himself quite as sensibly and methodically and effectively as he cares for his work. That is, he keeps himself in first-class physical shape. He swims, plays golf and is an enthusiastic motorist. He eats sensibly. He goes to bed on time. He doesn't smoke. He doesn't drink black coffee or jig water because—well, it isn't the Frueauff way. If he did that, he couldn't keep step with all there is for him to do. He chooses to reserve his head for much clear thinking and the enjoyment of a very useful life instead of using it for worrying and headaches.

Frueauff has a very simple, sane and workable philosophy that he not only believes in but applies consistently and he has reduced it to these seven simple rules:

Frueauff's Seven Rules of Success

1. Be willing to think. Most folks aren't.
2. Work. Few persons make a real effort.
3. Stick. When things look hardest spit on your hands and go at them again.
4. Look to tomorrow. A workman sees today only, but an executive plans for tomorrow.
5. Cultivate personality. Appear and behave at your best.
6. Take advantage of luck. But don't depend on it.
7. Move heaven and earth to work at something you like.

And that is the way it has been throughout his career. Up to the time that Frueauff became the partner in the Doherty company, his advance had been through steady progression from one job to the next ahead. Since that time, it has been a matter of acquiring, co-ordinating and operating other and additional jobs. The upbuilding of this astounding display of affiliations that breaks all records in the Directory of Directors, has therefore been a gradual evolution due to the simple fact that each new job that has been given to Frueauff has been handled so efficiently that presently they have come to him again to help with something else. And this accumulating achievement has been made possible by Frueauff's simple habit of doing each thing carefully and quickly, hour after hour, day after day, problem after problem.

ON GETTING AND HOLDING A JOB

The following, from a recent article in which Frueauff is quoted on the subject of getting a job and holding it, is interesting. He said:

"In getting a job, personality stands at the top of the list of assets. Looks, posture, speech, clothes can be more or less staged. And they are all tremendously worth while staging to the best of one's ability. Luck also figures in the getting of jobs—no use denying it. I suppose my first job was luck, for I happened to be in an electrical company in Denver when Mr. Doherty came prowling out there in search of

material. There was the opportunity and there was I, and we came together. Luck is something to be taken advantage of, but not to be counted on.

"No worse luck can befall a young man, however, than to be forced into work he does not like. I liked electricity and it was a pleasure to learn it, bit by bit and step by step. I urge every lad to think what he wants to do and fight tooth and nail for an opening in that line. The tragedy of the world is in the millions of square workers in round holes.

"They should get out by eternally trying. Think, work, stick, look ahead, fight and hope. The greatest stumbling block of all is not caring. If you only want terribly hard to succeed, there are plenty of helping hands all about you."

You see, he has common sense, as well as energy and system. He has a job, a collection of jobs that would make a nervous dyspeptic of the ordinary man. But Frueauff is not that kind. He has a thinking apparatus that is orderly and unafraid. Pressure of work never makes him restless. He wastes no time running round in circles. He wastes no time over gallery stuff. He isn't worrying over what people are going to say. He does his work. He keeps his word. He is cheerful, sympathetic, cordial, likes people and makes friends easily. He is very receptive to new ideas. But, with it all, he is simple, unassuming, quiet and contented.

I often think of one day, some years ago, when Frueauff was president of the National Electric Light Association. It was convention week in Atlantic City. I was walking up the boardwalk from the pier at lunch time. Most N. E. L. A. presidents at this particular time are very important fellers, surrounded by from three to thirteen other people and very much engaged. But here came Frank Frueauff down from lunch, walking alone. He had escaped. Anyone would have thought that he was some chap who had dropped over to the beach for a week-end to rest a bit. But he was not walking in a trance, absorbed in 138 knotty problems, one for each of his constituent companies. Not Frueauff. That's not the Frueauff way. He was strolling back to the pier just like anybody else and he greeted me as we passed in the same old friendly way that made him such a genial host back there in Denver. And that's why everybody likes Frank Frueauff.

How Do You Make a Sale?

Personal salesmanship, after all is said and done, is the one big thing that makes or unmakes your profits. Look into these fourteen pictures and perhaps you will see yourself or your salespeople, and, "a word to the wise—," you know the rest.

By STANLEY A. DENNIS



MEETING AN OBJECTION

THE RIGHT WAY

Salesman: "Just try it yourself. See, you don't need to press down on the handle. Push it with one hand. Now watch those threads disappear."

Customer: "Good. I was just waiting for you to ask me to try it. My neighbor told me she had to press down hard on hers to make it pick up threads, but you don't on this one."

Salesman: "No, pressure can't do any good. It works without it, you see."

Take your camera and travel where you will. Go into contractors' shops, dealers' stores, and central station display and sales rooms. Catch a salesperson and a customer when both are on the job, and snap

a picture of them. Take a lot of such pictures, like those shown on these four pages. Make note of the sales conversations you hear. Then sit down quietly and study the sales you have caught with camera and

THE WRONG WAY

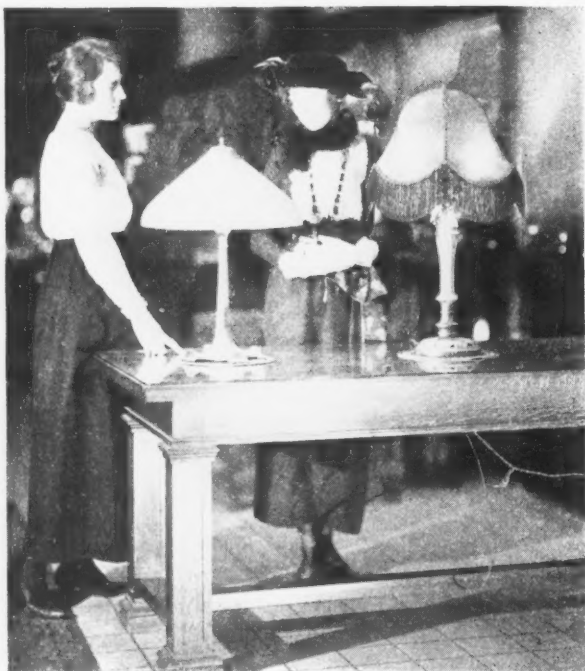
Customer: "But you have to press down hard to make it pick up, don't you?"

Salesman: "Oh, no,—see, it runs easily." (Sidesteps her objection).

Customer: "Of course, it's easy for a man."

Salesman: "Well, it's a lot easier than sweeping with a broom. A broom doesn't pick up everything at a single stroke, you know." (Continues to run it himself.)

pencil. You will learn that there are right ways and wrong ways to perform every operation in the making of a sale. Is the right way or the wrong way on *your* payroll? One way means profits; the other, losses.



GREETING THE CUSTOMER

THE RIGHT WAY

Saleswoman: "Good morning, Mrs. Wendell."
Customer: "Good morning. I was looking at these lamps. I need a lamp in my living room. Are these in style?"
Saleswoman: "Yes, they came in last Monday."
Customer: "The day I bought my vacuum cleaner. It is working splendidly."
Saleswoman: "And the lamp here will please you."

THE WRONG WAY

Saleswoman: "What do you want, lady?"
Customer: "Why, I—well, I—came in to see—"
Saleswoman: "Oh, you want to see our irons that are on sale. This way, please."
Customer: "No, I'm interested in a lamp for my living room."
Saleswoman: "Just a moment, I'll call the lamp clerk."



FINDING THE CUSTOMER'S NEEDS

THE RIGHT WAY

Salesman: "A flashlight?"
Customer: "Perhaps."
Salesman: "So much safer than matches at night, isn't it?"
Customer: "Yes, the night light in my hall is broken."
Salesman: "Why not let us repair the night light? And wouldn't it be convenient to tuck one of these under your pillow?"
Customer: "Yes, that's what I want."

THE WRONG WAY

Salesman: "Something?"
Customer: "Why—perhaps. I've—"
Salesman: "We have everything electrical for the home, madam, from a flashlight to a washing machine. A flat-iron, perhaps?"
Customer: "No, I am having trouble with the night light in my hall. Perhaps a flashlight would be better."
Salesman: "A flashlight is a good thing to have around."



PRESENTING THE GOODS

THE RIGHT WAY

Saleswoman: "Here is a very good iron. We have been selling it for a long time, and it has proved thoroughly reliable. Just try it yourself."

Customer: "Are there other kinds and weights?"

Saleswoman: "Yes, but for all around general use we are recommending this make and weight. If you want to see the others, I'll show them to you."

Customer: "I'll try this one; you're so enthusiastic about it."

THE WRONG WAY

Saleswoman: "There's our whole assortment, madam."

Customer: "Why, I didn't suppose there were so many kinds."

Saleswoman: "Yes, you have a good choice."

Customer: "Which is the best and easiest to handle?"

Saleswoman: "Oh, they're all good. We wouldn't sell 'em if they were not O.K."

Customer: "I see." (But she doesn't).



INTENSIFYING DESIRE

THE RIGHT WAY

Saleswoman: "There, see how quickly it was done. Toast for four—while they are eating their fruit. Taste it."

Customer: "Delicious."

Saleswoman: "Yes, hot, buttered toast every morning in the year. And you can cook your eggs and bacon at the same time—or other dishes—without leaving your chair."

THE WRONG WAY

Customer: "And I suppose you can use it in many different ways and for any meal."

Saleswoman: "Yes, and see how well it is made—substantial thickness of metal, well plated, highly polished. All these parts, too. It really isn't complicated."

Customer: "I see."



CLOSING THE SALE

THE RIGHT WAY

Salesman: "Yes, it's much better than a hot-water bottle. No water to get and to empty out. Nothing to drain. Constant heat. Different heats. Can't set anything afire. Will not burn you. Sanitary. Is there another question in your mind about it?"

Customer: "No, but I'm through with rubber bottles."

Salesman: "Shall I have it wrapped now?"

Customer: "Yes, please."

THE WRONG WAY

Salesman: "Understand it?" (After long-winded sales talk.)

Customer: "Yes, I think so."

Salesman: "Remember, as I said before—it can't burn you, it's a lot better than a hot-water bottle, and it's sanitary. And it's safe. You don't have to heat water for it in the summer, and—" (Tiresome repetition is interrupted.)

Customer: "Thanks, I'll think it over. Perhaps I'll take it later. I must keep an appointment now. Good-day."



TAKING LEAVE OF THE CUSTOMER

THE RIGHT WAY

Saleswoman: "If you are going to use your heating pad for someone who is ill, perhaps you would like to see this little device. It is an immersion heater. Shall I show you how it works?"

Customer: "Not today. I must hurry."

Saleswoman: "The next time you go by, then. Thank you for coming in today."

Customer: "Yes, I'll come in and see it."

THE WRONG WAY

Saleswoman: "That was all, wasn't it?" (Fails to note chance to interest customer in another appliance.)

Customer: "Yes."

Saleswoman: "Thanks. Call again." (Hurries away to gossip with another clerk.)

Customer: "Oh! Just a moment, please. What is this —?" (But the clerk has disappeared.)



For instead of sitting at his desk like some little before-the-war czar, the buyer was out on the road like any grocery drummer. Instead of picking and choosing merchandise, he was out "selling" his store to manufacturers. The whole situation was reversed, inverted, upside down, inside out, back side forward, end for end, repealed, revoked, null, void, and rescinded.

How Buyers "Sell" Their Orders How Salesmen "Buy" Their Accounts

Topsy-Turvy Conditions in the Trade Lead to the Strengthening of the Strong Merchants and Weeding Out of the Weak

By FRANK B. RAE, Jr.

A COUPLE of years ago, in an interview with S. J. Ryan, merchandise manager for the J. L. Hudson Company of Detroit,* I learned how one of the really progressive department stores conducts its buying detail, and determined later to write an article on that subject for the readers of ELECTRICAL MERCHANDISING. Old Bill Hohenzollern messed up this, as he did many another good plan. I was forced to hop over to France to help the Y. M. C. A. win the war, leaving the electrical industry flat for the time being. And when I finally got around to Ryan and his buying system, I found that the whole elaborate scheme was in limbo.

For instead of sitting at his desk like some little before-the-war czar, Ryan was out on the road like any grocery drummer. Instead of picking and choosing merchandise, Ryan was out "selling" the J. L. Hudson Company to manufacturers. The whole situation was reversed, inverted, upside down, inside out, back side forward, end for end, repealed, revoked, null, void and rescinded.

The art of merchandising, as it was understood and flourished in pre-war days, is non-existent. The science of purchasing has switched to one of salesmanship. The science of salesmanship has become a matter of pick-

ing and choosing resale outlets. Turnover, which used almost to be measured in r.p.m. is now thought of in terms of seasons or years. A new era has dawned.

And the old methods will never return. Those merchants who believe that present conditions are due to a temporary frenzy and that matters will soon settle back to the old ruts, are doomed to disappointment. The old ruts have been obliterated. Such ruts as may reappear, will be new ruts. The intelligent merchant will recognize this fact and develop his policies and methods accordingly.

MERCHANDISING IDEALS OF TODAY

The merchant of today and tomorrow has ideals beyond those which used to obtain. In the old days, the prime test of desirability in merchandise was the



Plainly, when buyers and sellers get to studying each other as business men, and not in terms of merchandise orders, a good many individuals of the old school whom we used to think of as "smart" buyers, are apt to find the going difficult. When a manufacturer calmly gazes over and beyond a generous order and fixes his attention upon the order-giver, there is bound to develop a better class of retailers.

margin of profit and speed of turnover. Today the test is prestige-winning quality; if the merchandise does not promise to build permanent prestige for the reseller, it is fundamentally undesirable, no matter how wide the margin of profit nor how many units can be sold.

So the merchant these days is no longer content to sit in his store and wait for travelers to bring him goods. He goes, instead, into the market-place, studies with keen insight every appliance and line, learns all he can of the manufacturers, and makes a connection which is little short of an actual partnership.

Mr. Ryan spoke, for example, of motor-driven refrigerators. Naturally he knows every machine manufactured and their comparative merits. That knowledge is to be expected of a large buyer. But he also knows the manufacturers behind the several machines, their organizations, capabilities, even their standing with the banks. One manufacturer—I do not recall of what appliance—resented Ryan's inquiries regarding his financial condition.

"It's none of your business what my financial statement looks like," this manufacturer declared, "so long as I make a good machine and you pay for it."

To which Mr. Ryan answered that his proposition embraced more than a

*See ELECTRICAL MERCHANDISING, March, 1917.

mere one-time deal in refrigerators; that if he considered any connection it must be permanent enough to last over a period of years; that the good name of his store and the good will it enjoyed among the people of Detroit was at stake, and that certainly he would not make a deal unless he was assured that the manufacturer was dependable.

That is the attitude of far-sighted buyers today. On the other hand, far-sighted manufacturers are equally careful. I recently spoke to a manufacturer regarding an annual contract for 12,000 electric vacuum cleaners. He did not bat an eye: on the contrary he weighed the proposition, showed where the proposed contract might not prove advantageous, and ended up by turning it down cold and flat—not because there was any question of price but because the buyer did not appear to be conducting his business in such a manner as to make him a strictly first-class distributor for the territory under discussion.

FOR NEW STANDARDS IN RETAILING

Plainly, when buyers like Ryan and sellers like this manufacturer get to studying each other as *business men* and not in terms of merchandise orders, a good many individuals of the old school whom we used to think of as "smart" buyers, are apt to find the going difficult. When buyers ask, "Do I want to put my local reputation behind this merchandise and this manufacturer?" the maker of skimpy wares and the shoestring sales company are out of luck. And similarly, when a manufacturer calmly gazes over and beyond a generous order and fixes his attention upon the order-giver, there is bound to develop a better class of retailers.

Ryan told of a case where he was investigated by a manufacturer—a maker, I believe, of washing machines. It was known that the J. L. Hudson Company intended to make connection with the



One day the washing-machine manufacturer called at the store—not a salesman, but the president of the manufacturing company! He did not go to the office and talk terms to the buyer, instead he hung around the appliance department, watched the clerks, noted the prices, and studied the store as a possible outlet for his product.

manufacturer of a first-class machine, and one day the manufacturer of such a machine called at the store—not a salesman, understand, but the president of the manufacturing company. He did not go to the office and talk terms to Ryan: instead he hung around the appliance department, watched the clerks, noted the prices, studied the store as a possible outlet for his product.

Ryan found him there and proceeded to "sell him the J. L. Hudson Company" as he expressed it. He told this manufacturer the firm's policies, explained their system of servicing appliances, introduced him to members of the organization so that the man would understand of what sort of people the J. L. Hudson Company is made. And then, before closing the deal, Ryan went down to the factory and put the manufacturer over the same set of hurdles. The resultant connection is not a buyer-and-seller arrangement whereby a certain quantity of goods are exchanged on certain terms: it is a practical business partnership. That is what business is coming to.

PRICE NEVER SO UNIMPORTANT AS NOW

Mere price was never so unimportant as now. Perhaps that is unfortunate in many respects, but also it has many advantages. It has taken buyer-and-seller transactions out of the haggling class. On Mr. Ryan's desk is a small motto. (I am not a great admirer of mottos but they sometimes tell one a lot about the fellow who tacks them up.) This motto of Ryan's is a quotation from the once richest man in the world, Baron Rothschild: "I made all my money by never buying at the bottom or selling at the top." Translated, this means that the J. L. Hudson Company is not in business to drive such hard bargains that it cripples its sources of supply, nor will it mark up goods to a point where the public good will is jeopardized.

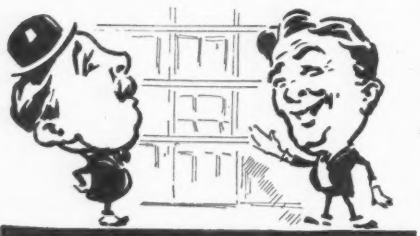
That spirit is spreading throughout all merchandising. The man who shops around trying to get a fraction the better of a buy soon finds that the manufacturers won't bother with him; and the man who marks his merchandise up "all the traffic will bear" finds that the public temper in respect to profiteering is rather short. The net result is that weak manufacturers and fly-by-night retailers are bedding down together, and when their present flood of business subsides—as it must—the whole malodorous outfit will flow out on the receding tide. Then business will be stronger, cleaner, better than any time within the memory of man.

Farm-Lighting Plants Blaze Trail for Central Station

That farm-generating plants, rightly viewed as "trail-blazers" for the central station, should be given every possible encouragement by central station men for this reason, is the opinion of at least one central station man, H. C. Stair, president of the Cambridge (Wis.) Light & Power Company.

"We consider these plants as 'trial breakers' for central station service," said Mr. Stair in a recent statement. "They are not powerful enough for the heavier farm service, and when central station power is available, the private plant is out of the running."

The Cambridge company, according to Mr. Stair, has so far shut down two low-voltage gasoline-electric sets, and expects in the near future to shut down five more. The farm load, in addition to lights in house, buildings and yard, generally includes a water pump automatically controlled, delivering into a pressure tank for house use; a feed grinder; and a washing machine. Farmers are good customers for appliances, says Mr. Stair, and practically every home has an electric iron, tableware and vacuum cleaner.



He told this manufacturer the store's policies, explained its system of servicing appliances, introduced him to members of the organization. And then before closing the deal, the buyer himself went down to the factory and there put the manufacturer through the same set of hurdles.

How to Know Period Styles in Lighting Fixtures

Italian Renaissance, Adam and Colonial are the preferred period styles in lighting fixtures today. Business will go to the dealer who knows these styles and how to sell them.

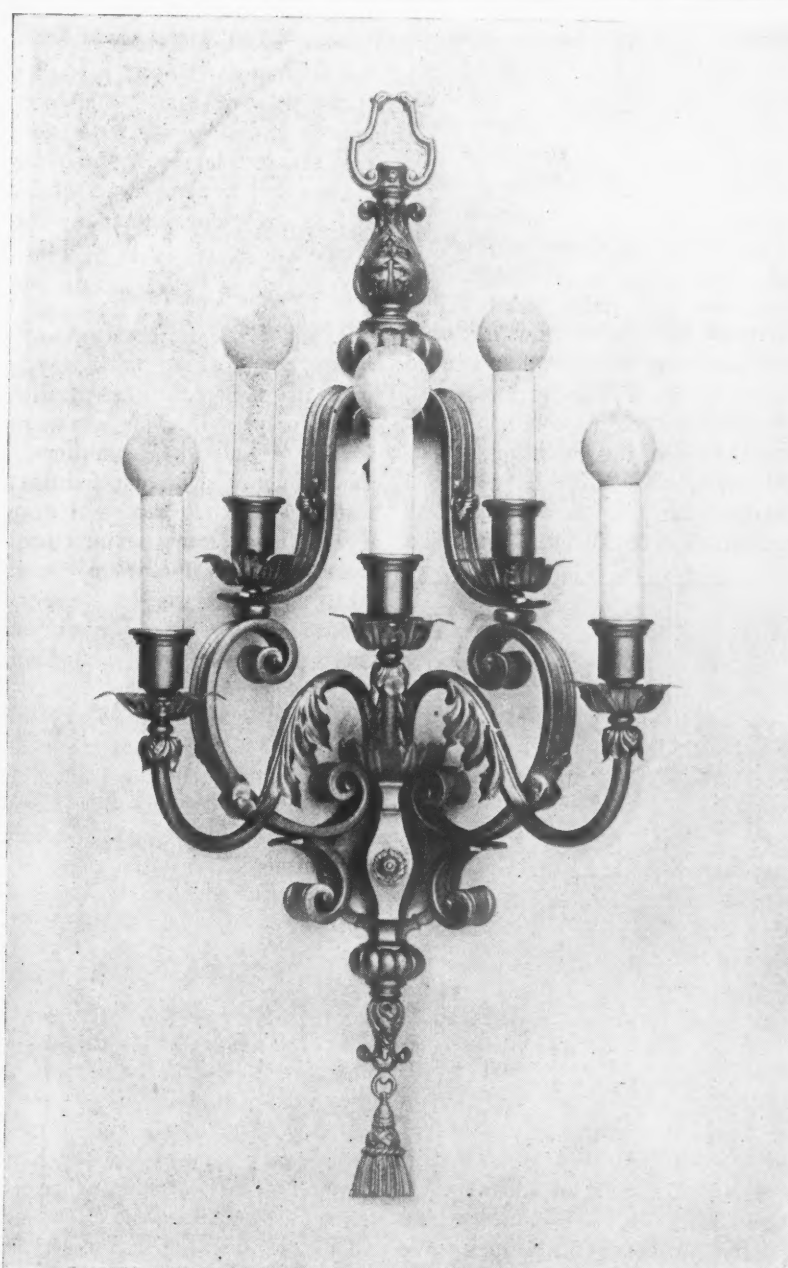
By FRANK A. DRISCOLL

FROM the most remote time the styles of lighting equipment have followed closely the character, customs and environment of the various peoples and have corresponded in growth to the development of their civilization and refinement, the skill of their workmen and the use of improved tools as well as the employment of a variety of materials. No new style has ever been created without a knowledge of some older period type and probably never will be.

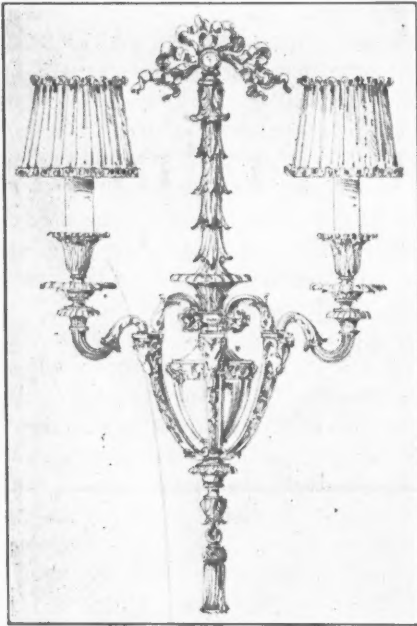
The wide variety of materials available and the many splendid examples of ornamental design in the possession of the artists of today, make the development of more artistic lighting equipment a certainty. A visit to the studios devoted to the designing of lighting fixtures, especially of the residential type, discloses the fact that the general forms of candelabra, wall bracket or chandelier follow closely the older examples of lighting methods, while the ornamentation may easily be traced to the period styles of architecture, furniture and household furnishings.

The student of period styles may delve into the mysteries of design as deeply as he may desire and always find something interesting and instructive. The salesman in the studio, the dealer in lighting equipment and those who contemplate the purchase of a selection of electrical lighting equipment must be able to obtain the information necessary to understand the harmony of furnishings and appreciate the actual excellence of the materials offered.

It has been said that the most persuasive kind of reasoning today is that which is based on the solid foundation of actual excellence. We have no great concern in these days for things that are old, simply because they are old. We are inclined to believe that the



Scroll, acanthus leaves, and husks predominate in this fixture design, which is an excellent example of the Italian Renaissance style. The influence of the early Romanesque or Moresque style is discernible.



This bracket is a splendid example of the Adam period style, which is especially popular at the present time among careful buyers of lighting fixtures.

new is better. We are a practical people, little given to sentiment. We do not care very much where things came from, no matter how far back in the past, but whether they can do their work. It is the work then of the designer skillfully to combine utility and style to meet this condition.

We must, of course, have a real foundation for our taste in lighting equipment as in our furniture, rugs and



The Colonial bracket shown above exemplifies the period of glass lamps which came into favor about 170 years ago, or 1750.

other house furnishings, if we are to avoid the dangers of poor selection. We as a nation are a bit self-conscious in the matter of taste in everything pertaining to house furnishings. We are apt to be influenced very strongly by waves of popularity for one style or another. If we could be independent of the prejudice and taste of our neigh-

bors, we must be able to judge the excellence for ourselves. It is to this end that these suggestions are here given.

A careful study of the more popular period styles at this time, indicates a preference for three of the better known period styles in lighting equipment; the Italian Renaissance, the Adam, and the Colonial. A brief description of each period style follows, to aid in the selection of the lighting equipment best fitted to harmonize with the furnishings with which they are to be placed.

THE ITALIAN RENAISSANCE

The Italian Renaissance is perhaps the most elaborate of the classic styles. Coming as it did after a period of Romanesque and Gothic, it was a return to the lines of Rome, combined with delicate and elaborate modeling of refined acanthus leaves, Arabesque scrolls, ribbons and flowers, swags of fruit as well as grotesque human and animal forms.

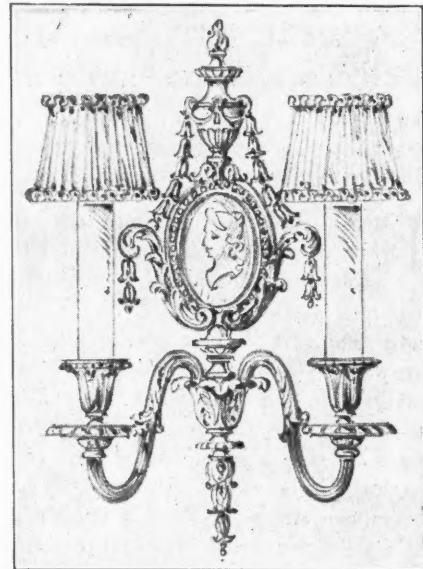
THE ADAM

R. and J. Adam, architects and designers, from whose work this period takes its name, are classed with the Georgian period. This style was a decided reversion to classic lines. The excavations of the Pompeii ruins were begun at this time and many examples of the magnificent architecture and household furnishings were brought to light, in almost perfect preservation. These rare, curious and interesting objects connected with the luxurious magnificence of Pompeii, gave new life to artistic design. The principal motifs were small rosettes or medallions, delicate wreaths, fluting placed closely together, ram's-heads, urns, festoons and classical moulding. The festoons were formed of flower-like husks with a conventionalized bow of ribbon at the top.

THE COLONIAL

The Colonial period style was derived from three distinct sources. In Virginia and New England, the English styles were used and it is safe to say that many a Colonial example is nothing more or less than a correct Georgian production. The Georgian period includes the work of Chippendale, Hepplewhite, Adam and Sheraton and was the most interesting period in English design. New Amsterdam or New York being settled by the Dutch, produced a style after the contemporaneous designs in

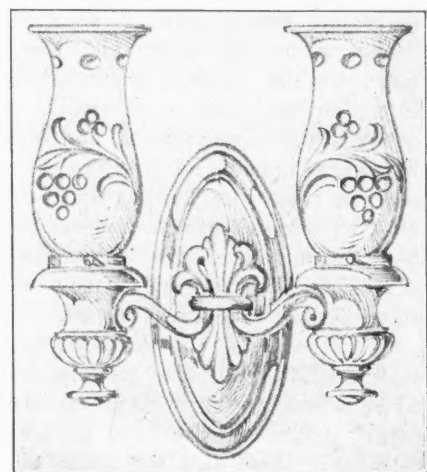
Holland which in turn were influenced by the Flemish and French work. Occasionally, we note a slight influence from the Spanish conquest, for example the Spanish foot seen on Flemish and Dutch productions. In the South, especially around New Orleans, "Colonial" signified the Louis styles and the Empire style.



The graceful lines are unusually pleasing in this Adam style and the motifs are skillfully employed.

From all these sources there has developed a style that is well called our own. In the Colonial "scroll" we have a new type. The Lion's claw was employed on the base of the productions of this period.

The designers of lighting equipment employ the motifs of period styles in the various designs of candelabrum, wall bracket and chandelier so skillfully that the completed production harmonizes perfectly with the furnishings



The Colonial period style has always been in favor, and this popularity is growing stronger every year. This style of fixture, as well as the Adam, will probably sell for a long time.

of the same period. It is needless to say that the added efficiency of the modern electric lamp make these productions indeed a combination of utility and beauty characterized by its actual excellence.

The merchandising renaissance throughout the electrical industry is highly conducive to the study and application of period styles in lighting fixtures. The foremost manufacturers of lighting equipment are ready and willing to co-operate with the trade to the fullest extent to the end that the salesmen may be schooled in period styles.

PURE STYLE OF DESIGN ESSENTIAL

The time when a meaningless combining of stock parts will be accepted as high-grade fixtures, must be superseded by better examples of pure style of design. The satisfaction obtained from the better patterns of lighting equipment is far more lasting and builds better business.

Let your suggestions express your interest in the personal welfare of your customer. Co-operate with your brother salesmen in the furniture studios. Cultivate the friendship of the decorator and adopt his methods. Learn to guide your customer's taste and impress him with confidence in your judgment, based on knowledge and experience in the proper treatment of lighting problems. In order to do this, make the period styles a special study. Let this mark your renaissance in sales building.

Concede Industrial Plant Business to the Retailer

"Differences in price to different classes of trade have been proposed as a proper and effective principle of electrical merchandise distribution," said W. R. Herstein of the Electric Supply Company, Memphis, Tenn., in discussing the functions of electrical jobbers at the Tennessee electrical contractors' convention.

"This principle has the sanction of highest authority, though to what extent it has been put in practice, and how it has worked out in practice, I am not advised. I take it that the business of the large industrial plant can be successfully handled only by jobbers, whose capital investment and buying power enable them to command the interest of paid purchasing agents. It is hardly likely that the retailer, even were his

capital sufficient, could interest such extensive buyers at retail prices.

"However, there are elements of danger in the price differential plan. Unless a fairly distinct understanding is had regarding the class of industrials entitled to buy from jobbers, an overlapping of sales effort is bound to occur, and the salesmen of the retailer and jobber will be found soliciting the same customer. This is destructive to that harmony of operation which the entire industry desires, and it seems to me, therefore, that *in localities where no very large industrial plants exist, the jobber should concede the entire business to the retailer and adopt the principle that he will sell only to central stations, electrical contractors and concerns which buy for resale.*

"These tests are simple and are easily applied. Whenever a question arises as to whether a jobber should solicit or accept certain business, any employee is capable of deciding without hesitancy; and, best of all, it states the jobber's position unequivocally so that his own customers may know how to deal with him and with their own trade.

"Although some of the largest and most reputable electrical houses in the country present the combination of jobber and retailer, the practice is gradually being abandoned.

"As the jobbing business grows, larger housing accommodation is required, and the questions of rent and railroad facilities encourage location in exclusively wholesale districts, which necessitates the abandonment of the retail department. This is well, since it is obviously unfair for the jobber, with his greater purchasing power and lower costs, to compete with the legitimate retailer, particularly if he is soliciting business from that same retailer.

ADVANTAGE TOO ONE-SIDED

"In fact, as I have intimated before, it seems to me a most absurd and impossible situation for a jobber to seek the business of a contractor-dealer and at the same time be in active competition with him. I can readily see where the advantage lies for the jobber, but why the contractor-dealer should stand for it has always been beyond my comprehension."

The men whom I have seen succeed best in life have always been cheerful and hopeful men, who went about their business with a smile on their faces and took the changes and chances of this mortal life, facing rough and smooth alike as it came.—Charles Kingsley.

Demonstrating the Glass-in-the-Carton Idea



Among the numerous activities of J. L. Wolf, secretary of both the Lighting Fixture Dealers' Club of Cleveland and of the Lighting Fixture Dealers' Society of America, is his aggressive promotion of a movement in favor of packing illuminating glassware in individual cartons. This picture was snapped while the double-acting secretary of the L. F. D. S. of A. was explaining the advantages of cartoned glassware to S. A. Saunders of the Hamilton Company, a leading fixture house of Cleveland. At the annual meeting of the Lighting Fixture Dealers' Club of Cleveland on Dec. 1, the following officers were elected for the year: C. H. Lang, president; R. D. Paxson, vice-president; C. S. Brookins, treasurer. These three officers, with J. A. Fitch, J. A. A. Hamilton, and C. N. Domby, constitute the executive board.

"Why Should I Take an Inventory?"

To Check Your Merchandising Account, to State Your Assets Correctly, to Buy Wisely, to Keep Stock Clean, to Figure Correctly, to Start a Stockkeeping System—You Need to Take an Inventory

By ARTHUR FRANCIS

"**R**UNNING a store is just one fool thing after another," said an exasperated electrical dealer the other day, without stopping to make apologies for paraphrasing a famous definition of 'life.' "And of all the fool things," he went on, "an inventory is the worse. It's a hoodoo at Christmas time and a bad dream for a month afterwards. What's the use?"

Probably there are a good many electrical retailers who are inclined to slap this dealer on the back, and shout, "Right-o, old boy, that's the question!"

But—when the shouting dies and the shouters depart, enough hard-headed, clear-thinking, and progressive contractors and dealers—including proprietors of new stores—can be heard asking for the facts in the case, to make it worth while to answer the question, "Why should I take an inventory?"

Let it be said at once that if your business is fully organized to meet the demands of modern trade conditions, you will not find it necessary to take an inventory for the good and simple reason that you keep a perpetual inventory in operation, and a special accounting spasm at the season of roast turkey and cranberry sauce is therefore unnecessary. But for one retailer who maintains a perpetual inventory there are probably hundreds who do not. And many of these do not take inventory at regular intervals. Some never take one.

An inventory is not a pill. It is not a special cure-all for the many ills of the electrical industry. Yet there are reasons why the average electrical contractor-dealer should take an inventory of his stock. There is no special reason why this inventory has to be taken at the beginning of the year. As a matter of fact it can be taken at any time in the year, and its full value can be obtained at that time. However, trade custom has made the holiday season the end of the fiscal year for

many business men, and therefore an inventory at that time is both logical and worth while.

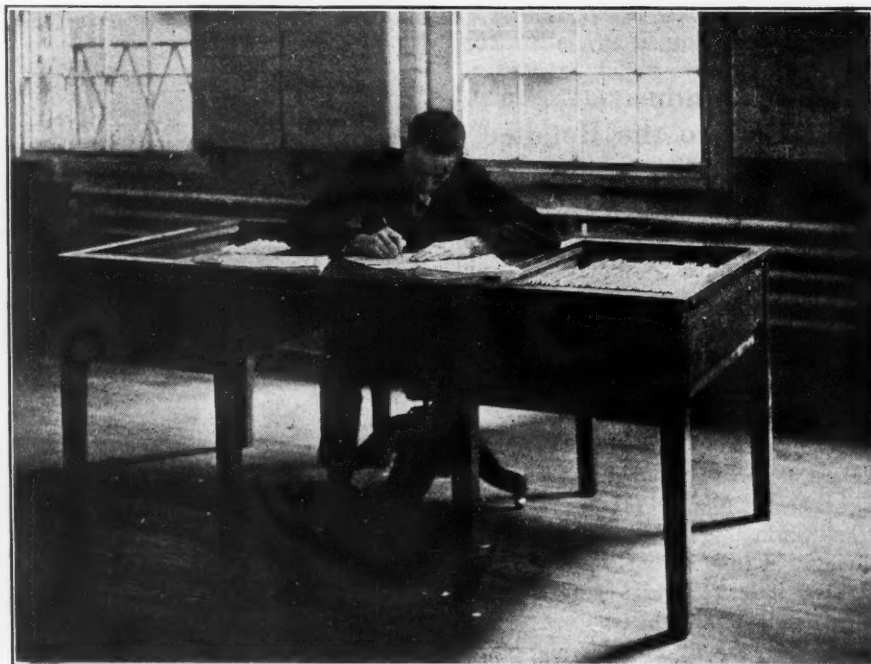
The successful merchandising of any line of goods, and this is certainly as true of electrical goods as it is of groceries or hardware, requires that the proprietor, or manager, or head of the business, or whatever he may be called, shall know certain fundamental facts about his business. These facts are as necessary to the veteran electrical retailer as they are to the seven hundred or more new retailers who have entered the electrical field during the last fourteen months.

The head of the paying business must know what goods he has bought and how much of each kind. It is necessary that he shall know, in the second place, what goods he has sold and how much of each kind. And third he must know what goods and how much of each kind

he has in stock. These three facts may be called the A B C of buying and selling.

These three things are essential and necessary things because they are facts which must be in hand before the merchant can do certain things which successful merchandising requires him to do. Checking the accuracy of a merchandising account is one of these.

In the new standard accounting system for electrical contractors and dealers a merchandising account is provided which in a general way covers the first and second of the above named requirements to successful merchandising. The system does not, however, provide for the maintenance of an inventory nor does it require a periodic taking of an inventory. It does recommend that an inventory be taken at certain times in order to check the accuracy of the merchandising account.



This ought to be a stimulating suggestion for the electrical contractor and dealer. In this one piece of office equipment a jobber keeps a perpetual inventory of his stock. Perhaps that system would not do for the contractor, but—who will devise a stockkeeping system that will do for the contractor-dealer what this system does for the jobber?

The account in turn serves to check the accuracy of the physical inventory. Such is one excellent reason for the taking of an inventory.

There are times when a merchant must make an accurate statement of his assets and liabilities. He may want to borrow money from his banker, who, while he will seldom lend money on any other than a quick asset as he calls it, will want to know a good many things about the electrical man who wants to obtain a loan. If the dealer takes an inventory periodically that fact is certainly to his credit in the mind of the banker. The banker also will want to know what goods were on hand at the time of the last inventory and what goods are on hand at the time the loan is sought. Also he will want to know the value of these goods. And woe betide the would-be borrower who has fallen down in properly pricing his stock. But that is another story. A periodic inventory will help you when you want to borrow money from your bank—or when you want to sell your business.

Name any article that is sold at retail. The successful merchant of it is likely to know approximately how many units of this article are needed by the consumers within his sales territory. He will know what the actual consumption probably is. He will know how many of these articles he has sold within a given time. And to a workable extent he knows in round numbers what his competitors have sold. In other words, the successful merchant is successful because he is skillful at what is called market analysis.

Such an analysis is the basis of his own selling effort. He reasons that in a given time in a given market he can sell a given number of the article in mind. Therefore he must know how many of these articles he has on hand—they may be lamps, or flat irons, or vacuum cleaners or motors—before he buys in order to sell according to his analysis of his market. His accounting system may or may not provide him with this information without an inventory. A system which would do so with reference to the purchases, sales, and stock on hand of all the various kinds of electrical goods so that an inventory will not be necessary at any time probably would not be a system that could be operated successfully in a one-man business. Certainly such a system is not in operation in any of the thousands of one-man electrical



Goods on hand are merely dollars in another form. Bins may be well constructed and sufficient in number; but if stock is mixed up, cluttered along aisles, and lost in the shuffle, results are likely to be as disastrous in the long run as they would be if a dealer's dollars were handled in the same shiftless fashion.

stores, not to mention the many new stores that have developed during the last year. So an inventory becomes necessary to assist the buyer in determining his purchases both as to extent and as to date.

Every successful merchant keeps his shelves free of old stock. He keeps his stock clean, in other words. If a physical inventory were unnecessary for any other reason, it would still be necessary and invaluable in helping to keep the stock clean. This reason why an inventory should be taken at regular intervals applies with particular force to a very large number of electrical dealers in wiring supplies and fixtures, who seem prone to clutter up their shelves and bins with a thousand and one odds and ends of stock which becomes unsalable or for various reasons. In taking an inventory this stock, which is only dollars in another form, is brought to light. Of course it should be disposed of, if possible, at a profit; and if not, at cost. Getting rid of it even at a loss is better than keeping it on the shelves.

Quantity figures and value figures arrived at in the taking of an inventory are essential in the figuring of turnover, whether turnover of stock or turnover of capital is meant. Unfortunately the word "turnover" is even a larger mystery to many retailers than the word "overhead." But happily

the interest of electrical retailers in both words was never keener than it is today, and the mysteries that have shrouded both of these accounting terms are growing thinner every year because both must be understood, if profits are to be made and held. In determining turnover, losses, and profits, the figures derived in keeping track of what and how much has been bought, what and how much has been sold, and what and how much is on hand are, of course, absolutely necessary. Otherwise, the dealer is attempting to make bricks without clay, not to mention straw.

It may be, also, that in line with many progressive electrical retailers, the head of the business wishes to put in some definite plan for keeping track of his stock. If he does, an inventory of the goods actually on hand is the starting point. A stockkeeping system shows, through requisitions, how the quantity of goods is diminished, and, through receiving records, how it is increased. Obviously, any figures are of little value unless the quantity of goods on hand at the time of the installation of the stock-keeping system has been determined by an accurate inventory.

Many other reasons could be given to show why an inventory should be taken. These which have been discussed are sufficient to show the need of an inventory to the many new dealers.

There's Money for You in Installing

"Get" These Points to Your Prospective Customer

HERE'S a list of places which should be equipped with private telephone lines or systems. How many in your own town are within five minutes' walk from where you are right now! Then start out and take your first order to-day, even if it's for just a two-station line. With one pair of handy inter-communicating phones once installed, the telephone habit gets fixed and before very long the two-phone line grows into a regular system.

Are you getting your share of this profitable wiring and equipment business, in homes, offices, factories, shops, schools, banks, public buildings, hotels, warehouses, farms, and—

if you are in a sea-port or lake city—on ship-board? Private telephone systems save steps, time and money for your customers, and make money for you.

Now, when the telephone companies are charging \$3.50 to \$15.00 to install a telephone or extension and \$3.00 to move it from one desk to another, and are besides raising their rates for monthly rental on switchboards and each instrument connected, is the time for the contractor to save money for his customers by equipping them with inter-communicating telephones.

Local inter-communicating systems will handle from 60 to 70 per cent of all the calls in the



In residences, between—

Master's bed room
Kitchen
Butler's pantry
Laundry
Guest rooms
Garage or stable
Servants' quarters
Nursery
Library
Living room
Hall or reception room

In apartment houses, between—

Entry corridor
Individual apartments
Elevators
Superintendent's office
Janitor's quarters
Laundry

In restaurants, between—

Manager's desk
Dining room
Kitchen
Pantry clerk
Checkers

In stores, between—

General manager's office
Department heads
Credit department
Shipping department
Aisle stations
Stock room
Mechanical department
Delivery department
Engineer

In hotels, clubs, etc., between—

Manager's office
Room clerk
Information desk
Lobby
Guest rooms
Kitchen
Pantry
Dining room
Laundry
Porter's desk
Housekeepers
Floor maids
Maids' quarters
Quarters for male help

On the farm, between—

Main house
Hot houses
Help's quarters
Barns
Dairy
Cow stables
Sheds

In warehouses, between—

Superintendent's office
Bookkeeper
Floor stations
On elevators
Shipping platforms

In newspaper offices, between—

City editor's desk
Business manager
Composing room
Press room
Art department
Morgue
City room, head of copy desk
Cashier's office



In offices, between—

President's office
General manager's office
Sales manager's office
Department heads
Stenographic department
Mailing department
Salesmen's desks
Correspondents' desks
Cashier's cage
Bookkeeping department
Shipping department

Inter-communicating Telephones

and Give Him the Thought of "Talk, Don't Walk"

average business house or factory, for at least this proportion of the total calls "originate" and are completed *inside* the customer's own organization.

Compared with a "private branch exchange," an inter-communicating system leaves the regular telephone lines free to handle important outgoing and incoming calls. The operator can give her attention to these outside calls, without being occupied with calls between departments.

An inter-communicating system provides at low cost a telephone for every individual who needs to talk with other departments, while the number of expensive "regular" telephones

is reduced to those who must do calling to the outside.

An inter-communicating system enables the person calling to reach instantly the station called, regardless of how many other calls are being made at the same time. With the ordinary manual "P. B. X." board each call must wait its turn, until the operator can give it her attention.

An inter-communicating system requires no operator; works twenty-four hours a day, 365 days a year, without vacations; and doesn't grow tired or negligent, talk back, or "listen in."

"Talk, Don't Walk"!

In banks, between—

Officers' rooms
Cashier's office
Receiving tellers
Paying tellers
Bookkeepers
Safety deposit vaults
Attendant at door
Janitor



In factories, between—

General manager's office
Superintendent's office
Heads of departments
Principal foremen
Stock room
Shipping department
Paymaster's office
Gate-keeper's house
Watchman
Engineer

In theaters, movie houses, etc., between—

Manager's office
Box office
Door keeper

Stage

Musicians
Dressing rooms
Electrician
Operator's booth
Property man
Press agent
Check rooms

On shipboard, between—

Pilot house
Captain's quarters
Wireless room
Engine room
Fire room
Main salon
Galley
Dining salon
Stateroom stewards
Staterooms

Schools and colleges, between—

Office of principal, president, or superintendent
Class rooms
Library
Laboratories
Auditorium
Janitor, superintendent of buildings
Dormitories
Gymnasium
Lunch room
Rest room
Between buildings
Near-by residences of officers, professors and teachers

In public buildings, city libraries, etc., between—

Superintendent's office
Offices
Librarians
Bookshelves
Janitor
Engineer



In hospitals and institutions, between—

Superintendent's office
Business office
Waiting rooms
Physicians' offices
Ward matrons
Wards
Pharmacy
Nurses' dining room
Operating room
Kitchen
Pantries
Between buildings
Also "hospital call" system should be installed here

Random Ticks of the Store Clock

BY BRUCE F. RICHARDS

1. Do not expect to have pep, punch or push for your business unless you lead a sane, wholesome life and keep thoroughly in touch with both the local and national aspects of your business affairs.

2. A cheap employee may be mighty expensive in the end. Consider what kind of brains you are justified in expecting to help you handle your business successfully.

3. It never pays to let business matters drift, for all too often the current sets in toward the rocks. Face the worst as well as the best and do it now!

4. Whatever has to be done will be accomplished more easily, with less expense and nervous wear and tear, if proper preparations are made well in advance. To put things off is to make results pull hard.

5. The business man who is conceited carries a big handicap all the way, for conceit is so apt to become over-confidence, and over-confidence makes for a false sense of security and often encourages the foolish expenditure of money.

6. Learn to make decisions quickly, *after* you have thoroughly acquainted yourself with the facts. Waiting and putting off never gets a man anywhere.

7. It's a mighty good plan to decide at night what items the following day's business are to be given first attention. Keep such a memorandum on the desk or in the vest pocket and go to those important details without delay, for upon the doing of them promptly will depend much of one's success and mental alertness.

8. The man who permits himself to do much complaining, soon degenerates into a common scold, or that even more despicable thing—a whiner. Complaining, scolding and whining are signs of weakness.

9. It pays to take time to understand your employees. If a man feels he is understood and appreciated, his loyalty can be depended upon. Otherwise he is restless, dissatisfied and lacking in permanent interest.

10. When it is necessary to fill a vacancy in your force remember to be fair, and if possible fill from the bottom up, rewarding faithful and loyal service by merited promotion.

11. The man who is approached by a salesman with a new proposition should ask himself three questions: First, will these goods or this service appeal; second, how much will it cost me to introduce it, and what profit can I hope to have left for myself; third, will the line compete with some branch of my own business, and will it be slow-moving and a tie-up of capital, or bring quick returns. Many a business man puts in a new line of goods only to find that they are shelf-warmers. Be discriminating; choose only the best and most reliable, thus building up a reputation for high-grade stock. Naturally, the nationally advertised lines are easier to sell than unknown ones.

12. Have the vital facts of your own business at your finger tips at all times, and don't wear mitts, for this makes the handling of those facts awkward in the extreme. Have a bookkeeping and stock-accounting system which will present you with the bare facts any minute you want them. And by the way, a bookkeeping system which doesn't prove itself every day doesn't amount to much!

Novelty Display That Sold Small Side Lines

A number of small compasses and a large horseshoe magnet constituted the entire "property" necessary for a window display which sold a considerable amount of novelty goods for the Newman Stern Company, an electric shop in Cleveland, Ohio.

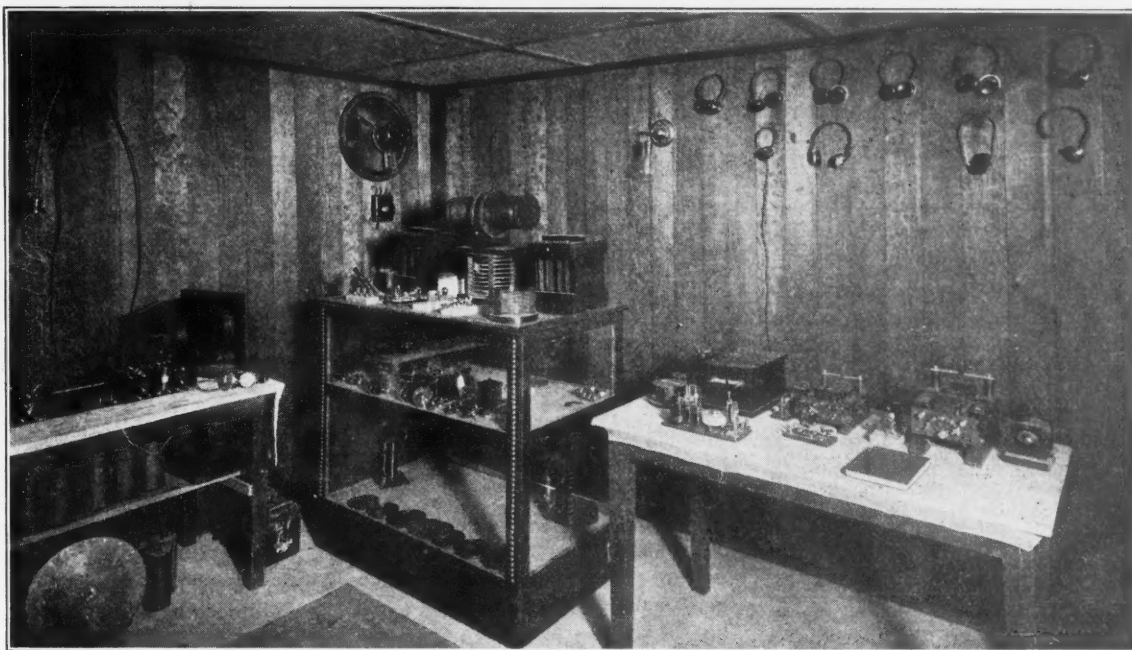
The display occupied only a small part of the window. Pocket compasses were distributed liberally in this corner, and above them was suspended a large horseshoe magnet. A fan in another corner of the window kept a current of air flowing past the magnet, which made it swing through an irregular course. The movement of the magnet, of course, set the compass needle "crazy." There was a crowd in front of the window watching the compasses most of the time.

A card above this part of the display read: "A 25-cent compass for 10 cents. Get one for the boy." Another small display of horseshoe magnets and compasses near by suggested a purchase of the magnet and the compass together at the small price of 15 cents.

Getting the Most Out of Your Exhibition Space



Have you ever noticed that there are always a few booths at an electrical show which you pass by with hardly a glance? And of course you've never analyzed why this is so—because you don't think about it at the time, and you don't remember afterward. It's usually because that booth is so cluttered up with a mixture of appliances, electric ranges, curlers, lamps, milk-bottle warmers and what-not, that the passer-by hasn't a chance to see anything and passes on. "Plan your space carefully beforehand"—that was evidently the motto of the planners of this booth, which made a great hit at the New England Fair in September at Worcester, Mass. There was a lot in the booth, but the orderly arrangement gave an effect of restfulness and space.



Here is the wireless-telegraph sales department of a progressive electrical dealer in the far-away Hawaiian Islands—the radio room of the Electric Shop at Honolulu. Many plantations in the Islands depend on wireless communication, and there is a brisk business in radio apparatus sold to plantation owners and others in the Hawaiian group.

The "Wireless Ban" Is Off!

Lifting of Government Restriction Against Amateur Receiving and Sending Outfits
Has Opened a Profitable Field for the Electrical Dealer

By JOSEPH SANTLEY

WHEN the United States entered the war, the government silenced, almost overnight, the wireless telegraph stations of hundreds of thousands of amateurs by its order that no sending or receiving apparatus of any kind be operated without a special war permit. Only army, navy and commercial stations engaged in transmitting government messages were permitted to continue, and all radio outfits of whatever size or kind were put under the strictest possible surveillance.

Shortly after the armistice was declared in effect, however, the first steps were taken to lift the wireless ban on amateur stations, and by the early spring of 1919 the restrictions against wireless receiving sets were cancelled, as announced at the time in *ELECTRICAL MERCHANDISING*. And now comes the lifting of the ban against transmitting apparatus and sending stations, so that the wireless opportunities and privileges

for the amateur are henceforth restored to what they were three years ago.

ANOTHER IMPORTANT SUPPLY LINE FOR THE DEALER

To the electrical dealer who will equip himself to sell wireless goods to the amateur and commercial operators in his vicinity, this dropping of all restrictions against both sending and receiving sets, means an opportunity for much profitable business. For, during the time the ban has been so rigidly enforced—almost three years—the sale of wireless goods to amateurs has been at a standstill. But now that "the lid is off" there is a whole army of boy experimenters to be equipped—in fact, almost a three years' crop in one.

And besides this triple normal crop of Young America interested in wireless, there is another army of older boys and young men, returned to school and civil life from service in the radio divisions of the army and navy. Having ac-

quired a knowledge and enthusiasm for wireless many of these young men are taking up the subject as a pastime, and are equipping splendid amateur stations that for completeness and sending range take almost professional rank. Others of the signal corps and radio men on leaving the service have drifted into commercial operating work in connection with the hundreds of commercial radio stations which are now working full blast, and which also have rapidly increased in number since the war.

SELLING TO COMMERCIAL WIRELESS STATIONS

Ships' wireless stations, of course, are first in number and importance in the commercial field, but nowadays there are many other large and powerful stations operating in connection with newspapers, department stores, mines, transmission companies, railroads, and plantations—all aside from the sending plants of the regular wireless telegraph companies.

The volume of wireless business is really tremendous in those stores which have made a practice of catering to buyers of radio apparatus—both to amateurs and to commercial operators on land and on shipboard. Indeed, the wireless apparatus sales of one New York City electrical supply house total \$7,000 to \$8,000 a month, about one-quarter of its total over-the-counter business being in "wireless." Seaport and lake cities present particular opportunities to sell wireless goods, and some dealers, like the Honolulu electric shop pictured on the preceding page, have set aside special departments for the sale of radio apparatus.

But whether or not your territory includes any commercial wireless stations with their continuous need for supply parts, coils, reactances, wire, insulators, etc., it is a pretty safe bet that your community has the customary proportion of young American wireless enthusiasts, and if you can make your store headquarters for these radio "bugs" you are certain to reap profitable and interesting business.

"WIRELESS" KNOWLEDGE AND STOCK NEEDED

To get ready to handle this desirable trade in wireless supplies, receiving sets, transmitting apparatus, etc., there are two requirements:

1. There must be someone in the store who "knows wireless"—someone who knows what to buy and what to sell, someone who can advise customers and help them, by intelligent suggestions, to get results. If the dealer does not feel himself qualified for this wireless selling, he can do no better than to enlist the help of some local devoted wireless enthusiast—even if only for a few hours each day after high school hours, paying him perhaps a commission on all wireless sales.

2. There must be an *up-to-date stock* of the supplies, receiving devices, auxiliary apparatus, etc., which the amateur public wants. And it is not so important that your stock be large as that it embrace the simple *timely* needs of the amateur, for these wireless "bugs" keep closely in touch with the progress of the art, and demand the very latest in receiving and sending apparatus.

A SUGGESTED \$500 STOCK OF WIRELESS APPARATUS

Following is a sample stock list of wireless apparatus (with present-day retail selling prices), this stock to cost the

dealer approximately \$500. It has been carefully worked out as a balanced stock for the electrical retailer who wants to go into the sale of wireless apparatus. It includes the three outfits described, and also enough extra supplies to make up three additional sets.

Complete set with a receiving range of 150 to 600 meters and transmitting range of from 3 to 5 miles.

RECEIVING SET

	Retail Selling Price
One No. 358 Mascot tuning coil...	\$3.15
One No. 266 Murdock fixed condenser.....	.81
One No. 324 Murdock detector stand with crystal.....	1.10
One pair No. 444 head receivers...	2.25

TRANSMITTING SET

One 1/4-in. Marion spark coil.....	3.00
One No. 467 Mescos spark gap.....	1.08
One No. 101 wireless key.....	1.62

AERIAL

One pound (250 ft.) No. 14 aluminum aerial wire.....	.80
Four pairs two-wire cleats, for insulators.....	.10
One No. 710 Trumbull d. p. d. t. switch.....	.76
One No. 7 Trumbull s. p. s. t. switch	.22
10 ft. No. 14 single braid rubber covered ground wire.....	.20

Total.....\$15.09

Complete set with receiving range of 150 to 3000 meters and transmitting range of from 12 to 22 miles.

RECEIVING SET

	Retail Selling Price
One No. 344 Murdock receiving transformer.....	\$9.00
One No. 266 Murdock fixed condenser.....	.81
One No. 368 Murdock variable condenser, 23 plate.....	3.75
One No. 339 Murdock loading coil.....	4.00
One Grebe single detector with crystal.....	3.25
One pair No. 55 2000-ohm Murdock receivers.....	4.50

TRANSMITTING SET

One 2-in. Mescos spark coil.....	11.97
One Murdock high-tension condenser.....	3.25
One No. 80 wireless key.....	3.60
One No. 421 spark gap.....	2.25
One No. 270 Murdock oscillation transformer.....	5.00
One Eldridge 0-1 amp. hot-wire ammeter.....	3.75

AERIAL

Two pounds (500 ft.) No. 14 aluminum aerial wire.....	1.60
Eight Ball electrose insulators.....	3.20
One No. 384 lighting switch, 100 amp. 600 volt.....	4.95
One No. 463 antenna switch.....	4.05
10 ft. No. 4 ground wire.....	.70

Total.....\$70.18

Complete set with a receiving range of 150 to 5000 meters and a transmitting range of from 35 to 50 miles.

RECEIVING SET

	Retail Selling Price
One Clapp-Eastham receiving transformer.....	\$14.00
One No. 339 Murdock loading coil.....	4.00
One No. 266 Murdock fixed condenser.....	.81
One No. 366 Murdock variable condenser (43 Pl.).....	4.75
One Grebe tube unit, to control audion.....	11.00
One Marconi V. T. Class 1 audion lamp.....	7.00
One 22 1/2 volt "B" battery.....	3.50
One pair No. 213 trans-Atlantic receivers.....	10.00

TRANSMITTING SET

One 1/4-kw. Acme transformer (transmitting).....	17.00
Two Murdock H. T. condensers ..	6.50
One No. 80 wireless key.....	3.60
One No. 222 rotary spark gap....	21.00
One No. 270 Murdock oscillation transformer.....	5.00
One No. 379 line protector.....	7.50
One general radio 0-3 hot-wire ammeter.....	10.00

AERIAL

400 ft. 7 St. No. 22 copper aerial wire.....	8.00
Eight Ball aerial insulators.....	3.20
Two 5-in. aerial insulators.....	.88
One No. 463 antenna switch.....	4.05
One No. 384 lighting switch.....	4.95
One rubber leading-in insulator ..	1.20
10 ft. No. 4 ground wire.....	.70

Total.....\$148.64

Extra Wireless Supplies

Two No. 358 Mescos tuning coils	
Six No. 266 Murdock fixed condensers	
Two No. 324 Murdock detector stands, with crystals	
Two Grebe single detector stands, with crystals	
Two No. 368 Murdock variable condensers, 23 plate	
Two No. 366 Murdock variable condensers, 43 plate	
Two pairs No. 444 Mescos head receivers, 75 ohms	
Two pairs No. 55 Murdock head receivers, 2000 ohms	
Two No. 339 Murdock loading coils	
One Clapp-Eastham receiving transformer	
Two No. 342 Mescos practice code sets	
Two 22 1/2-volt "B" batteries	
Ten Ball insulators	
Five 5-in. insulators	
Three No. 710 d. p. d. t. Trumbull switches	
Three No. 7 s. p. s. t. Trumbull switches	
Five pounds No. 14 aluminum aerial wire (250 ft. per pound)	
One 1/2-in. Mescos spark coil	
One 1-in. Mescos spark coil	
Two No. 421 Mescos spark gaps	
Two Murdock high-tension condensers	
One No. 270 oscillation transformer	
Two No. 80 Mescos wireless keys	
Two Marconi V. T. Class 1 audion lamps	

Questions Arising in Everyday Business Answered

From the Lawyer's Viewpoint

BY ELTON J. BUCKLEY
Attorney-at-law, Philadelphia

Electrical merchants, contractors and dealers are invited to send in questions of a legal nature which will be of general interest to other retailers. Mr. Buckley—who is a lawyer with wide experience in the business troubles of a number of retail lines, and who has the unusual faculty of making clear to the layman the law points on which he is writing—will endeavor to answer your question in a later issue of ELECTRICAL MERCHANDISING.—EDITOR.

When the Customer Refuses Fixtures Made to Order

When a buyer orders the seller to make goods specially for him, goods for which there is no general demand, and when they are made, the buyer refuses to take them, what damages can the seller recover? And is he obliged to try to sell the goods before he can get damages?

If the goods are fully manufactured before the buyer refuses them, and if they have no market value, the seller can recover his damages, and he is not obliged to attempt to resell first. The measure of his damage is, however, the difference between what the price of the goods was to have been, and the cost of making; in other words, his profit. If the goods, however, have any market value and can be sold for anything substantial, his measure of damage will be the difference between the market price and the price he was to get. In some of these cases, where goods are specially made, the courts hold that title passes to the buyer when manufacture is complete, when the seller sets the goods aside in his place for the buyer, and notifies the latter to that effect. In those cases the seller can recover the full contract price.

For Violations of Wiring Ordinances

If wiring ordinances are violated, who is held responsible, the owner or the contractor?

Both might be held responsible, but usually the owner would not be, because he would have no technical knowledge on the subject. The only person really to blame would be the contractor, who would have technical knowledge of the

ordinance and what it meant. I have known of cases where the owner did have technical knowledge, however, and where he prevailed upon the contractor to work in such a way as to violate the ordinance. In such a case both owner and contractor will be held to have violated it.

Charging Interest on Unpaid Accounts

When can a seller charge interest on unpaid accounts? Once in awhile a customer will string us along with an open account, paying something on account from time to time, but actually owing us a balance for many months. I have taken up with our association the question of charging interest on those accounts. We have never done it before, and in fact, it is not customary in the trade.

I have often argued to business men and business men's associations for the charging of interest on overdue accounts.

There is not the slightest reason why your customers should borrow money from you for periods running into months, without paying the same interest they would have to pay anybody else. Interest can always legally be charged on overdue accounts, provided notice has been given the debtor that you propose to do it. Notice is especially necessary when you have not been in the habit of charging interest heretofore, for then you have inaugurated a course of dealing on which the customer is entitled to rely. In such a case I should send every customer a notice reading somewhat like this. "On and after ———, we shall be compelled to charge interest at 6% on all accounts more than———days old." You should also

print conspicuously on your billheads, preferably at the bottom instead of at the top, "This bill is subject to 6% interest if payment is not made in full within——days." If the business men of a line were to adopt this plan together, I have no doubt that it would greatly improve collections.

* *

Who Holds Title Where an Out- sider Finances the Sale?

If a banker finances the purchase of electrical equipment—for example, a farm-lighting plant with appliances—what legal points, if any, are involved with respect to the title of the goods? What I mean is, if a bank advances money to Jones, a farmer, to buy a farm-lighting plant, who has title to the plant—the buyer, or the bank, or the seller?

Under the method usually adopted for these transactions, the bank would expect to hold title, either under a chattel mortgage, a property note, or a conditional sales agreement, until the buyer has completed his payments. The seller would not and could not retain title if he had been paid, and the question of title would rise only between the buyer and the bank. Sometimes the bank is willing that the buyer should take title at once, but not as a rule. It usually wants title as part of its security

* *

Mechanic's Lien Can Apply to Appliances if Fixed Part of Building

When does the lien law apply to the sale of an appliance or to wiring work?

I judge the mechanic's lien law is meant here. The mechanic's lien law is a law applying practically in every state, for the protection of mechanics. It allows a mechanic who has furnished labor and materials for building construction, or alteration, to clap a lien on

the building if he is not paid. This lien does not come in ahead of any mortgages or other encumbrances already on the property, but it does come in ahead of anything subsequently put on the property.

The mechanic's lien law never applies to the sale of an electrical appliance, unless it is so firmly attached to the real estate as to become part of it. As an illustration, it has been held to apply to the wires and insulators in an electric light plant. It also applies to heating appliances if the above becomes firmly affixed to the realty. In a number of cases electric lighting appliances have been held within the mechanic's lien law, but only because they had really become part of the building.

Under the mechanic's lien law of all the states, so far as I have observed, the electrical workman or contractor is given the protection of the law. Regardless of whether it covers electrical appliances or materials, the law would everywhere apply to labor done on such work or wiring.

* *

How the Manufacturers Can Stop Price Cutting by Dealers

The electrical dealers in this section are bothered by the ——— department store, which is cutting the price on a certain line of electrical appliances, the ——— brand. As this party does a lot of advertising, the other dealers feel the competition and wish to ask whether there is anything to be done, as said party is disorganizing the entire trade.

Under the present state of the law, there is, of course, nothing to be done to the department store. That is, there is nothing *you* can do. The store owns the goods and under the well settled law can do as it likes with them.

There is a remedy, however, if the manufacturer will adopt it. He can notify the department store that its price cutting is demoralizing the trade, and that it must stop it or he will refuse to sell it. This is legal under several recent decisions, one of them the decision of the U. S. Supreme court in the Colgate case. The court held there that a manufacturer had an unrestricted and arbitrary right to select his own customers, and that he was within his rights when he threatened to cut a buyer off, and did cut him off, because he would

not resell at a fixed price. Your manufacturer can therefore solve your difficulty quite easily if he will use his power with the offending store. Is it legal for you to bring pressure to bear upon the manufacturer to compel him to do that? I have no answer for that, because no court has yet decided that precise question. Personally, I am inclined to doubt it. For the manufacturer to do it himself is all right, but to compel him by threats of a boycott to do it against his will is another thing. If I were a sufferer, however, I should not hesitate to take a chance by at least arguing with the manufacturer that he ought to cut a cutter off.

* *

Damage to Goods Unpacked on Your Sidewalk

If unpacked goods standing on the sidewalk near the curbing are damaged by a vehicle, can the owner of the goods collect damages from the owner of the vehicle?

He can, provided he was not himself guilty of negligence. If he was so guilty, he will probably be thrown out of court on the ground of contributory negligence, provided his own negligence contributed in any way to the injury. For instance, in one case I remember, a

retailer opening a case of goods on the sidewalk left a portion of them protruding out into the street. An automobile truck passed, collided with the part of the goods which protruded, dragged the whole into the street and ruined it. It was held that the merchant had been guilty of contributory negligence and could not recover damages. I suppose the case this inquirer has in mind is one where the goods are wholly on the sidewalk right enough, but a passing vehicle comes so close to the curb, that part of it extends over across the sidewalk and does the damage. In such a case the owner of the vehicle would doubtless argue that if the goods had been in the store where they belonged, the damage would not have happened. The question, therefore, would be, first, did the owner of the goods have a right to use the street for the purpose of unpacking his goods, and, second, if he did, did he leave them there too long? I am inclined to believe, however, (unless the vehicle was so crowded that it could not avoid coming so close to the curb) that the court would rule that the moving cause of the accident was the fact that the vehicle trespassed on the sidewalk, and that the owner of the goods could recover even if the two questions I have stated were decided against him.

A New Electric Shop—"Just Off Fifth Avenue"



One of the attractive new retail electrical stores in the Fifth Avenue shopping district of New York City, is the store of the Morison Electric Supply Company, 15 East Fortieth Street. The interior is fitted up with red mahogany and white woodwork, and the balcony makes it possible to utilize the high ceiling space for offices and for storing and displaying surplus stock. The photograph shows the effective use made of manufacturers' cartons for shelf display.

Jobbers Meet at Cleveland

IF one were asked to put into three words the spirit and action of the convention of the Electrical Supply Jobbers Association at Cleveland, Nov. 18-19, he might well say, "Cooperation is self-preservation." For in every session of the convention, in almost every speech, and in many things that were done, there was evident a spirit of cooperation and a determination to obtain results thereby, which promises well for the other groups in the electrical industry which come into contact with the jobbers, and for the jobbers themselves.

To express it in another way, one might say that the convention revealed a strong under-current purpose on the part of the jobbers to define their own position in the industry with more exactness and with more fairness to everybody concerned, to look at their own problems as problems of the other fellow also, to find a solution of each problem which would serve not only to the advantage of the jobbers themselves, but also be to the advantage of other groups in the industry, to work out their own plans with the other fellow's plan also in mind, and by co-operation to get the most out of the plan that is best for all concerned.

In the session of the Atlantic division jobbers on Tuesday morning, it was recommended that a commission of jobbers be instructed to draw up a definite policy on the subject of jobber merchandising. It was recommended that the jobbers lay down a definite statement as to what a jobber is and how he should sell. These recommendations indicate the purpose of the jobbers to remove the obstacles to better understanding and better relations with the other groups of the industry.

In the afternoon session on Tuesday, various jobbers recounted their efforts to assist in the establishment of a larger number of retail outlets, and in improving the stores already in existence. In this connection emphasis was laid on the necessity for assisting the contractor-dealer in improving his accounting methods. Pettingell Andrews Company, Boston, won high commendation in this connection for the active work it is doing in helping electrical retailers actually install the new standard accounting system.

"The contractor-dealer needs the educational efforts of the jobber," said W. Creighton Peet, national chair-

man of the National Association of Electrical Contractors and Dealers, who was present on invitation of the jobbers association. "But the jobber must have patience. You must not expect the retailer to learn all you want him to learn, all he needs to learn, in a day. Keep on helping him. Make him prosperous and you will make yourselves prosperous. Perhaps the contractor-dealer can not hold the big industrial plant at present, and the jobber can. But some day the contractor will do the contracting for the big industrial plant and then he will sell to the plant."

A resolution recommending that the association ask all jobbers doing a retailing business to divide by separate corporations the two kinds of business was endorsed in a general session on Wednesday morning. This is a step toward the "Wholesale Only" policy which is characterizing an increasing number of jobbers companies.

A report of a committee which co-operated with the contractors and dealers at their convention in Milwaukee in July in planning for the latter's Bureau of Research and Education was read and discussed, at this same general meeting on Wednesday. Emphasis was laid on the fact that in undertaking what is practically the same sort of work that has been done in California by the California Cooperative Campaign, the Bureau of Research and Education will have the support of the manufacturers in the work that is done on a national scale and that the local jobbers, central station and contractors and dealers are to support the local cost of the work.

"We must give this plan a try-out in some one place," said J. J. Gibson, of the Westin house Company, in discussing the Bureau. And from the remarks that followed it was evident that there will be no lack of places in which the local electrical people will want the first work tried out.

Jobbers were urged, in the afternoon session on Wednesday, to aid in the creating of new retail stores, especially for the distribution of lamps, in communities where otherwise the business would go to non-electrical stores.

One more point of cooperation between the jobbers and the contractors and dealers is worthy of mention. Several times during the convention

jobbers were urged to assist the needy contractor or dealer to collect his outstanding accounts. Too often the retailer who is pushed for payment needs the pull of the jobber in making the collection of customer accounts. Jobbers who have thus aided contractors and dealers reported that the effort is worth while and that if handled properly there need be no reluctance on the part of either jobber or contractor to cooperate in collecting the latter's accounts.

Canadian Electrical Meetings at Toronto, Jan. 15 to 17.

A number of Canadian electrical meetings are planned for Toronto during the week of Jan. 15 to 17. These include the Association of Municipal Electrical Engineers of Ontario; the Canadian Electrical Supply Jobbers Association; the Canadian Electrical Manufacturers Association, and the Toronto Section of the National Association of Electrical Contractors and Dealers.

W. W. Freeman, New President of Society for Electrical Development

At a meeting of the directors of the Society for Electrical Development in New York on Nov. 11, W. W. Freeman was unanimously elected president, succeeding Henry L. Doherty, who has held that office since the society was founded nearly six years ago.

As president of the Union Gas & Electric Company, Cincinnati, Mr. Freeman is well known to all branches of the electrical industry. Under his leadership the society will continue to work to co-ordinate and assist all branches of the industry to bigger and better business as well as to carry to the public the message, "Do it electrically."

In addition to the election of Mr. Freeman as president, two new vice-presidents were also unanimously elected by the directors, Fred Bissell, of the F. Bissell Company, Toledo, representing the electrical jobber's fraternity, and James R. Strong of the Tucker Electrical Construction Company, New York, representing the contractors.

Charles L. Edgar, president Edison Electric Illuminating Company, Boston, was appointed director representing central station interest in place of E. N. Sanderson, resigned.

Plan for Contractor and Farm-light Dealer to Cash in on Central Station Service to Farm Homes

By H. W. YOUNG

Central station managers are receiving many individual requests from farmers for electric service. For example Farmer Jones comes into the office inquiring about the cost of getting light and power from the transmission lines. The manager often looks with disfavor on the entire farm scheme and gives the farmer an array of figures as to the cost of lines, equipment, etc., which to the farmer is prohibitive. The next day Farmer Smith comes in, the same story is repeated, and so on day by day. As a result of these methods both the farmers and utilities lose.

The main trouble at present is a lack of co-operation and this void can be filled by the contractor or dealer, who can handle the entire matter by a plan known as the service certificate plan. By this method the contractor sells the farmers service certificates which give the right to connect a farm power and lighting equipment to the central station lines. For example assume that 20 farmers want service and that the cost of a 5-mile 6600-volt branch line will approximate \$5000. Each farmer

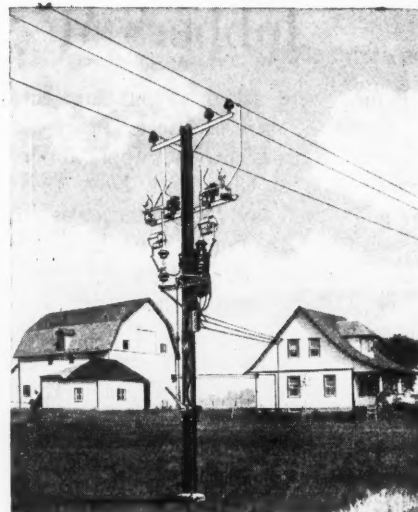
then pays \$250 for a certificate; and \$250 for a single-phase 3-kw. farm power and lighting equipment with transformer, or a total investment of \$500. This compares favorably in price with a 1-kw. individual lighting set and gives three times the capacity.

CONTRACTOR BUILDS LINE AT A PROFIT

The service certificate payments enable the contractor to build the lines at a profit, he sells the equipment to the farmer, installs it, sells the supplies, lamps, motors, etc., and then assigns the high-tension line to the utility.

The central station by this method is relieved of the work involved in soliciting farm-line business, it secures a line without cost, and sells current at a rate which will be profitable. To get \$3 per month from a consumer in town the utility incurs a certain investment expense. The farmer consumer's bill will approximate \$6 per month and he stands all the investment charges.

The contractor and farm-lighting dealer now has a big opportunity for new business and can co-operate to



A farmer's transformer and lightning-arrester equipment tapped onto the central-station line. This new farm-service transformer outfit is made by the Delta-Star Electric Company of Chicago, which has prepared a booklet describing the certificate plan for building line extensions into farm communities.

the fullest extent with the central station. The development of this new farm power and lighting equipment together with the service certificate plan insures concerted action, a fixed sum for the farmer to pay, enables the utility to take this class of service at a profit and gives the farmer the central station service that he wants.

Illuminated Lamp Shades Will "Sell Themselves" in a Window Display



Few things are less attractive to the casual passer-by than a heterogeneous window display of ill-assorted, carelessly piled, dusty and commonplace lamps. As this picture shows, a window planned to show only a few different and artistic designs in lamps and lamp shades is far more effective. Each lamp is set off by itself and shown to full advantage by being illuminated from underneath. The display was put on by the Tri-City Electric Company, Moline, Ill., of which W. J. Ball is manager.

The Motto that Counts

You may bring to your office and put in a frame

A motto as fine as its paint,
But if you're a cook when you're playing the game,

That motto won't make you a saint.
You can stick up the placard all over the hall,

But here is the word I announce:
It is not the motto that hangs on the wall,

But the motto you live that counts.

If the motto says "Smile" and you carry a frown;

"Do it now," and you linger and wait;
If the motto says "Help" and you trample men down;

If the motto says "Love" and you hate—

You won't get away with the mottoes you stall,

For truth will come forth with a bounce,

It is not the motto that hangs on the wall,

But the motto you live that counts.

It ain't no use to grumble and complain,
It's jest as cheap and easy to rejoice;
When God sorts out the weather and sends rain.

Why, rain's my choice.

—James Whitcomb Riley.

Electrical Merchandising

The Monthly Magazine of the Electrical Trade

believes that:

1. Goods must be sold and business done at a profit.
2. Business comes to the man who goes after it.
3. Central stations must compete with other retailers at a profit.
4. The contractor-dealer must go after business if he expects to get what he deserves.
5. Discounts in the chain from manufacturer to jobber to dealer must be so adjusted that every man who has a function gets paid for it.
6. It is to the central station's interest to encourage and foster retail sales by every retail electrical dealer in its community.
7. Electrical contractor-dealers should cease selling merely wiring jobs or appliances, and sell an electrical service.
8. The electrical merchant—central-station man, as well as contractor-dealer—must analyze his business, know his costs, and adopt modern merchandising methods in both buying and selling.
9. The electrical trade must think and practice "Quality Electrical Work," using quality materials. This means that owners, architects and builders must be shown the advantages of equipping houses throughout with convenience outlets; that plugs and receptacles must be standardized; that fixtures should be equipped with standard-plug connections; that lighting outlets and switches be located with regard to the principles of good illumination and convenience; and that meter-boards be so located that meters can be read without entering the house.
10. It is the duty of every electrical man to help educate the public to use electricity and electrical devices that lighten the labor of the home, office, shop and factory. To this end we urge local newspaper advertising on the part of every dealer handling electrical appliances, and that advertising departments of local newspapers be made part of the local electrical industry.

Clear Away the Prejudice

"I CONSIDER my hardest prospect half sold when I can induce him to tell why he has never given me an order," said a jobber's successful salesman recently. "Some of the reasons which create prejudice are so trivial that when the 'should-be' customer mentions his troubles, it takes only a few words of explanation to change his attitude for the better. There are times, of course, when I can't remove the obstacle to my getting orders, but then I consider it is up to me to find a way around it."

Do You "Hurry" or "Hustle"?

DON'T get "hurrying" and "hustling" mixed up. The hustler is the fellow who wants to accomplish more, not the fellow who wants to get through more quickly. The hustler is after more business and he is willing to do more work; he is all the while looking for something more to do. The hurrier is always trying to rush a job through and get done as soon as he can. One works with his eyes on the clock and the other with his eyes on his job.

If there is any work that cannot be hurried, though it calls for hustling, it is selling. Just the minute you begin to show a little hurry, the customer sees it and he begins to feel hurried. But if you hurry him, you lose him. If you are not in a position to let a man take his own time in buying you will be able to use various means to speed up the operation a little but you will camouflage those means carefully.

The man who hustles may grow old in years and become less able physically to do as much hustling, but he is in spirit a hustler as long as he lives. The hurried salesman, the hurrying kind, as he gets older becomes flurried and fussy and inefficient. He meets with early retirement and he deserves it.

Accuracy in Construction

WE have heard some criticism of late concerning electrical installation work; installation work wherein the contractor-dealer places a time switch 4 ft. high when it should be 3½ ft.; or where the baseboard receptacle is raised above the baseboard; or where the number of outlets is reduced without permission, and a thousand other little details.

There is only one way in which complete confidence may be established in the mind of the architect and in the mind of the builder and home user, and that is that satisfactory service must be given in installations of this nature; and it is only by constant care and constant watchfulness on the part of contractor-dealers engaged in this work that the standard may be raised to that ultimate degree of perfection where it will bring the contractor-dealer efforts upto a standard of accuracy that will be recognized and respected throughout the business world.

Let the Public Know Your Bogey!

IT is a rather unusual thing for a mercantile establishment to advertise the total volume of business which it is doing or expects to do during the year. However, the Sterling Electric Company, Minneapolis, which wholesales and retails electrical merchandise, has followed out such a plan with interesting success. All of the company's advertising during the spring and summer carried a slogan "Our goal is \$1,000,000 of sales for 1919." Evidently the public was very much interested in the slogan because, before the month of September had rolled by, the \$1,000,000 quota was reached and a new goal of \$1,500,000 was established.

When the first goal was attained the company gave a party to 250 of its employees and friends and for this party all possible local publicity was obtained.

W. H. Vilett, president of the Sterling Electric Company, believes in taking the public into his confidence in a thorough-going manner, and then keeping them interested. With results!



"Come Hither" Merchandise

IN EVERY store there are certain kinds of goods that might be called "come hither" merchandise. They are those things that bring the customer back to the store again to buy some more. Razor blades and soap and films do this in the drug store, for instance. Every customer to whom they sell these things and satisfy, becomes an account and returns to buy again. And every time he comes, he buys not only blades and films, but other things.

What good bait of this kind have we in the electric shop? Well, lamps and fuses and flashlights are "come hither" merchandise. The idea of complete equipment, well sold, is also a strong bond with every customer and he returns to you to buy again. It is worth while, therefore, and most important to sell to everyone you come in contact with, something that needs renewing from time to time. Make every customer an account.

IDEAS FOR THE MAN WHO SELLS



*Plans, Schemes and Methods to
Increase Sale of Electrical Goods*



Finding Success in the Appreciation of Small Things

BY C. E. SHAFFNER

Why Not Have a Young Man Demonstrate the Washer in Your Window?

Sprightly young ladies, matronly housewives, colored women, and even little girls, are familiar sights to us, demonstrating the electric washing machine in the show windows of the larger stores in our cities—so why not have a man do the job, for a change? Most of us are so used to picturing a woman at the washing machine that the sight of a dapper young man at that ancient but not time-honored task would shock us into something more than momentary attention. The idea was successfully tried out in one of Chicago's leading electric stores.

A young man was stationed at a washing machine in each show window, with his sleeves rolled up, washing, wringing and hanging up a typical Monday wash. A sign at the bottom of each window advised the passers-by that "this is likely to happen in any family."

The success of the idea was evident in the increased number of sales—women evidently taking to good heart the moral, "Well, if mere man can do it that way, why can't we?"

Merchandising 32-Volt Lamps

In the farm-lighting game the service man is getting to be a necessity. The problem now is not whether or not to hire a service man—it is rather a question of how to make him pay his way. He can be an expensive luxury or a productive addition to the sales force. One way to increase his productivity is to make him a lamp merchandiser. More than 800 dealers in the United States have already adopted this idea and have supplied their service men with lamp-carrying cases put out by one of the larger lamp companies.

This case is compact, measuring only 23 in. long, 10½ in. wide and from 10 to 17 in. deep, telescoped. It is made of metal-bound fiber board of good appearance. An adjustable canvas strip serves both as a tie for

the case and a handle for carrying. It will hold from 50 to 100 lamps of assorted sizes, with a supply of 200 order forms.

A few reasons why every farm-plant dealer and service man should carry a lamp case follow:

It increases lamp sales. It helps sell lamps by the carton. It saves delivery trips. The sale of only ten lamps, made because they are at hand, insures sufficient profit to pay for more than 2 gal. of gasoline at 30 cents per gallon. It enables the dealer to render personal service to customers. By making sales personally the dealer is assured that the customer is not buying inferior goods elsewhere. It is safe, convenient and compact. It offers an opportunity to demonstrate lamps and suggest sizes for various uses, insuring the sale of more 50-watt type C lamps in preference to 40-watt type B lamps.

There is an electrical store in a large Middle West city which, in spite of all apparent advantages, has never been able to obtain much out-of-town business. On the other hand, another store several blocks farther from the interurban station has built up a tremendous out-of-town business, to the mystification of its competitor. But the reason of it is simple:

The successful firm, to convince out-of-town residents that it was conducting its store on a basis of friendly service, announced in its advertising: "Out-of-town people will receive the same treatment at our store as they might expect from any merchant in their home town." On the other hand, the unsuccessful store announced that "special attention" would be paid to out-of-town customers.

The difference in wording may seem slight, but it certainly had the effect of drawing visitors to the one store and not to the other. As the

"Baby Week" Electrical Display in Omaha



There doesn't have to be a "Baby Week" to have a window display like the one shown here, but that is what they did at the electric shop of the Nebraska Power Company when "Baby Week" came round in Omaha. Electrical appliances to promote the health and comfort of baby were shown, including the electric bottle warmer and the electric sewing machine to make baby's clothes. On each appliance was a card describing briefly its use. A life-size figure of a baby about three months old was rocked in the cradle in the window. This cradle, which was the chief attraction of the display, rocked automatically by means of a clock spring, and appeared to be electrically operated.

commuters themselves expressed it, they were by no means taken with the idea of special service. In the first place, the idea was hackneyed, and in the second place, they didn't believe they would get "special attention" anyway. They went to the other place because, as far as they could gather from the advertising, the proprietor seemed like the kind of retailer with whom they were accustomed to do business.

The home with the most outlets is the home that buys the most appliances—QUALITY ELECTRICAL WORK!

Some Pointers in Selling the Idea of Electric Laundering

"In most cases in the selling of washing machines or ironing machines, the salesman must first orally convince the prospect that the machine will do the work," said H. H. Koelbel, sales superintendent, Consumers' Power Company, Muskegon, Mich., at the convention of the Michigan Section, N.E.L.A., in August.

"The average woman doesn't know what dirt is. She must be told that it is only small particles of dust held together by a greasy binder and that the soap and water wash the clothes, not the rubbing on the washboard.

"With the ironing machine, every woman has the idea that all that can be ironed are sheets, pillow cases, and flat pieces not requiring finish. You must demonstrate to the woman that she can save three-fourths of an hour ironing a fine table cloth and produce a better finish than she can by hand. You must show her that shirts, aprons, and in fact 90 per cent of the ironing in the home can be done on the ironing machine."

Crowding the Customer

Under the delusion that the process is one of scientific selling, there are some sellers who go too far in their zeal to subtract from their patrons whatever reserve cash the latter may be supposed to possess.

Proprietors oftentimes err in this respect, but more frequently it is the employee who offends.

In these days, when very willing workers are rewarded with bonuses for excess sales, or participate in the accumulations of the cash register on a percentage basis in the form of commissions, there is a tendency to encroach on the rights of the customer.

Though this performance occurs in different lines of trade, a very fine manifestation of it, on occasion,

is found in the haberdashery shop. The customer has a well-defined impression in his mind of an intended purchase. It may be that his sole desire is the acquisition of a pair of socks. Then, not in the guise of subtle suggestion but with rasping insistence, the overambitious salesman begins his machine-gun fire of what he intends as reminders to the purchaser but which to the customer sounds like an inventory of most of the stock of the establishment.

Sometimes it is productive of the extra sale without resentment on the part of the purchaser, but that does not warrant the procedure. It is a strong-arm method of selling, and not acceptable to the many. Moreover, it is crude.

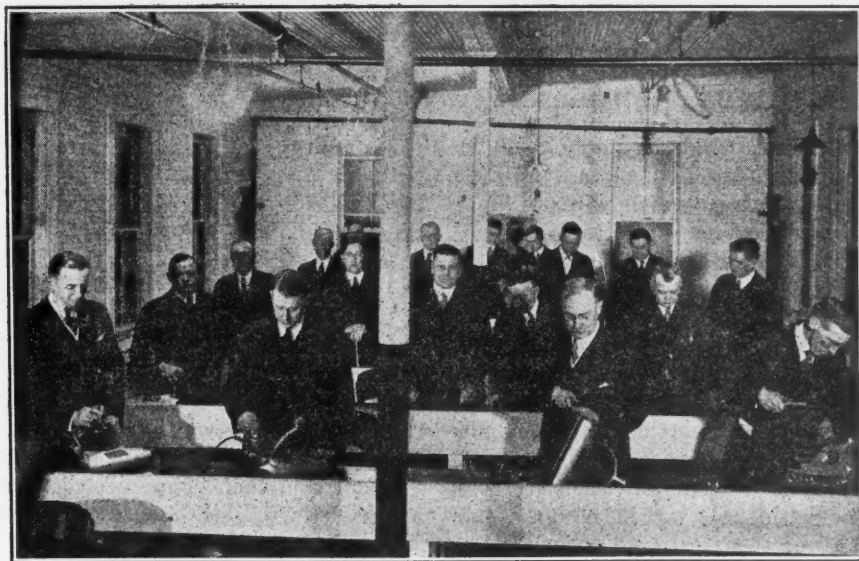
It is perfectly proper to endeavor to extend almost any purchase beyond the original intent of the purchaser, providing decent delicacy is employed in the proceeding.

But lead the customer up to it gently with intelligent, well-directed persuasion.

Americanization Work Immensely Important

At the Augusta (Me.) meeting of New England electrical merchandising men in June, M. R. Griffeth, General Electric Company, Boston, Mass., touched upon the Americanization work now under way in many New England manufacturing plants. The importance of every employee's being able to read and write English is one of the first things to recognize in combating Bolshevism. L. D. Gibbs, superintendent of advertising, Boston Edison Company, and chairman of the Augusta meeting, believes that individually and in organization, electrical men can accomplish much in building up anti-Bolshevistic sentiment and in doing away with unrest among commercial department and other employees by striving to offer them opportunities for advancement financially and otherwise in return for good work. A booklet, "Getting Together," has just been published for free distribution by the Old Colony Trust Company, Boston. This contains extracts from speeches delivered on May 20, 1919, by Mayor Peters of Boston, H. B. Endicott and former President Taft, emphasizing in a meeting at Tremont Temple, Boston, the need of co-operation to combat the menace of anarchy.

School-Days Again for Suction Sweeper Salesmen—and Their Managers



From the puzzled look and grim determination on some of these faces, you'd think they had never seen a suction sweeper before—and yet they are men who have handled the article anywhere from one year to twenty. They are, in fact, salesmen and salesmanagers of the Hoover Suction Sweeper Company, gone "back to school" to learn all about factory methods and service plans. This unique sales school was organized by the company at its plant at North Canton, Ohio, to insure the highest degree of efficiency. It is under the direction of Earl C. Marine, formerly with the sales school of the National Cash Register Company.

Wash-Day Demonstrations in the Home

The Domestic Appliance Company of Kansas City, has no use for the regular demonstration of the electrical washing machine, either at the store or in the home, says the *National Hardware Bulletin*. The company believes that the best way to convince the housewife of the value of an electrical washing machine is a demonstration under actual working conditions.

So, upon request, the company sends a machine to the home on wash day, and the housewife is at liberty to do her washing in the electrical way, without cost or obligation to herself. A woman demonstrator accompanies the machine to acquaint the housekeeper with the working of it.

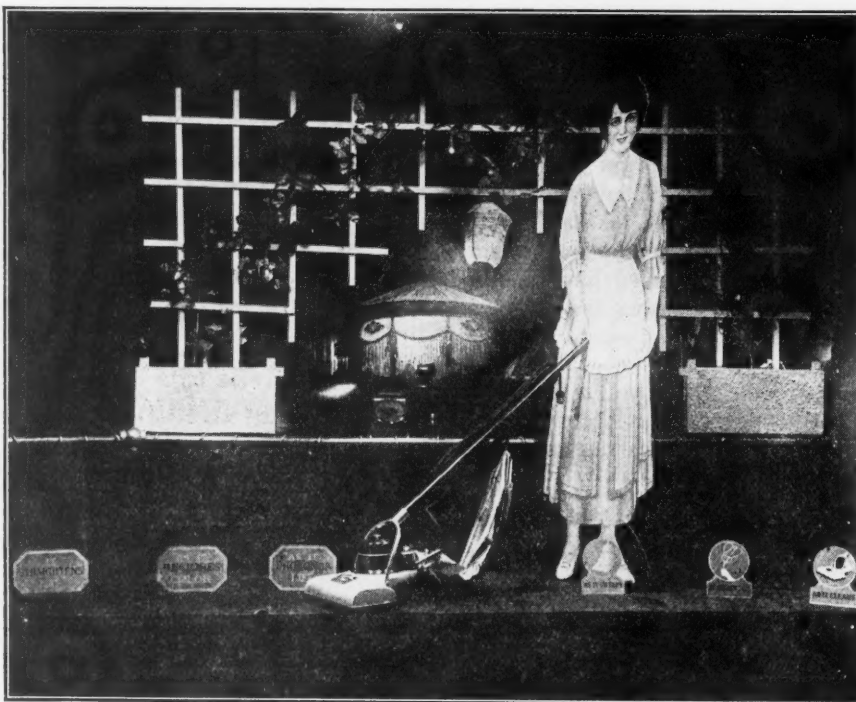
How to Pull the Order Blank

"Any farm-plant salesman who does not carry an order blank in his pocket will lose ten plant sales a year." This is the opinion of R. H. Grant, general manager of the Domestic Engineering Company, Dayton, Ohio. "Never mind about getting the correct number of carbon copies. Get the original for yourself and a copy for the customer and make out any others later. Be sure to keep two copies folded up in your pocket day and night. When you are talking to a prospect watch him. If he looks like he might sign, pull the order blank on him. Ask him to put his name on it. Many a good sale has been lost because the agent did not ask for the business."

Tub Stands—a Washing-Machine Accessory to Sell

"The hardware trade has been doing it for years but the electrical dealer is just getting on to it." That is the way an electrical man summarized the situation when a friend of his expressed surprise at seeing a tub stand in his shop. It stood alongside a line of seven washing machines. It was nothing more than a wooden bench with sturdy folding legs that could be turned back to permit storing the tub stand in a limited space. It would accommodate two tubs. The retail price was \$2.50.

A tub stand of another model made of steel sat further back in the



Here is one of the window displays that helped sell 248 vacuum cleaners among the residence customers at Orrville, Ohio. The flowering vines and trellis work at the back of the window do much to beautify the display—to say nothing of the little Japanese lantern casually tucked in, for good measure. These window displays of the Orrville Electric Service Company are regularly changed weekly.

store. It was round on top and was supported on four legs. Castors under it made it very convenient because a tub full of water did not need to be lifted from place to place. It could be rolled. These round steel tub stands could hold only one tub and usually sold in pairs for \$4 per pair.

Selling Methods That Have Made World Record for Ohio Village

Orrville, Ohio, has only 3800 inhabitants, but it has, nevertheless, made a record which will put it on the electrical map if nothing else will, says G. V. Rauch, manager of the Electric Service Company of that town. According to a report of the Hoover Suction Sweeper Company, says Mr. Rauch, Orrville has the largest per capita sales of suction sweepers, proportionately, of any town or city in the world. The town's record is 248 suction sweepers sold. The residences wired number 403. Sales of electrical appliances for the last twelve months have totaled \$18,000. Competition is kept alive, too, by two other electrical dealers, besides five dealers who handle lamps, washers and sweepers.

Mr. Rauch lays his success to the

service that he gives, and to modern business methods. The cardinal rule of the company is that the customer *must* be satisfied. If some fault is found, the shop makes an exchange or permits a return regardless of where the fault lies. Not long ago, a floor lamp was sold to a woman resident. After keeping it a while, she decided that she wanted a shade of a different color. She was told an exchange would be made and a lamp ordered to her liking. Later, Mr. Rauch received a letter from the husband, criticizing him severely and threatening to take the matter up with his main office. Soon the husband himself came to the store, Mr. Rauch explained the situation, and before the visitor had left the shop had sold him a washer.

The display windows are changed regularly once a week, and are always the town gossip, says Mr. Rauch. An open ledger is kept on the desk, and every visitor who comes in and looks at some appliances is listed in the book and then "gone after." In a small town, you cannot give up prospects, says Mr. Rauch; you must "keep at" the same ones until they are sold. Mr. Rauch's entire force consists of himself and one boy, who does the repairing and stays in the office when Mr. Rauch is out canvassing for business.

HINTS FOR THE CONTRACTOR



Ideas on Estimating, Stock Keeping, Shop and Construction Methods, and Collections

Your Repair Department Means Real Service—See That Your Customers Know It

BY CHESLA C. SHERLOCK

Many dealers in electrical appliances operate a repair department for the benefit of their patrons, in order to extend the service which they can render. But many dealers, on the other hand, neglect to keep their patrons and prospects adequately informed of just what this service includes. Too often the woman purchaser takes it to be merely the salesman's desire to sell goods, and does not realize that, if the electric iron or washer or vacuum cleaner gets out of repair, it will cost her little to have it fixed.

Of course, all dealers do not make this kind of an offer, but the importance of emphasizing the repair department is all the greater for those dealers who do make repairs, or are planning to do so.

If the dealers will have a few post cards printed, each with a personal inquiry as to whether the iron or cleaner is still in good condition or whether it needs repairs, and offering his services at a small cost, or without charge if only "screwdriver repairs" are needed, and will mail such cards frequently to customers, he can strengthen the tie that once brought him business. Real lasting service, after all, consists in doing the utmost to keep the customer's good-will, and nothing holds it like an unselfish desire to serve. Similar cards may be used for other appliances.

"Money Back—but No Rebates"

BY CHARLES K. TOWNLEY

"If any of our second-hand or used electrical machinery or motors give you trouble and you are not satisfied with your purchase, ship the machine back to us, and we will cheerfully refund your money," is the policy of a successful dealer who

specializes in second-hand motor sales.

"But we cannot undertake to guarantee our machines for any fixed length of time, nor to give the purchaser any rebates or credit allowance for minor faults that are not important in themselves but are used as excuses to attempt to get something knocked off the purchase price.

"We had to come to this policy as the result of the difficulties we formerly experienced with certain small purchasing agents and young assistant buyers. These men are usually keen to show their smartness to their superiors and hence are often seeking to find some excuse to come back at us with a claim for an allowance of some kind.

"When we get such a claim, we answer courteously that the machine is not guaranteed but that if the customer wishes to return it we will refund the purchase money. Usually the answer comes back that the trouble is not as bad as was at first supposed and that the customer prefers to keep the machine as it is. This policy has saved us the heavy expense of making many small repairs at a distance which the customer can himself make at negligible cost."

Charging for Your Men's Time

Whatever rates you decide upon in charging for repairing, wiring, or any other kind of outside work, it's best to leave no chance for a misunderstanding and its consequent haggling. To avoid trouble of this kind, a Kansas City firm gives exact information about prices and terms on the "confirming order" for work to be done.

A minimum charge of \$1 is made for the services of any of its workmen who are sent outside of the shop. Other terms are stated as follows:

Unless otherwise stated, all work done during regular working hours will be handled on a unit time and material basis. We charge for journeyman workman's time at the rate of per hour for four hours or less. If

the time exceeds four hours, the charge will be per hour. Our charge for a helper's time will be per hour. We make a minimum charge of \$1 for the services of any of our workmen who are sent outside of our shop. The labor charge will include all the time of our men while they are going from our shop to the job and return. All material will be invoiced at our regular selling prices. We charge you for carfare of men, cartage and any miscellaneous expense that we have to incur in handling your work, basing this on the actual cost to us. Our terms strictly net cash upon completion of work.

How the Other Fellow Handles Overdue Accounts

A study of the correspondence of firms dealing with overdue accounts is often instructive to the electrical supply man. In some cases commercial men in the electrical field have allowed certain of their accounts with local business houses to lapse temporarily, in order to obtain in regular course the full line of correspondence prepared for such cases. When such correspondence has been analyzed and discussed with the executives of the business houses involved, crudities in the electrical man's own collection methods have been removed and practice improved.

See That Sales People Visit Factories When Possible

When feasible, salespeople in electric shops should visit factories where the products they handle are made, and learn the inside story of production. Putting new men on for a time with the best salesmen helps a great deal. Other companies' sales departments should be visited. Create incentives for sales effort. Mere "seasonal" solicitation never develops sales efficiency. The use of the blackboard in sales conferences is helpful, especially in requiring employees to figure out actual bills from the existing rate schedule. The practice of freely discussing one's personal "bulls" and errors before others and receiving helpful comment thereon is almost invaluable. Interest bill-payers at the office whenever possible in appliances, especially capitalizing any short period of waiting while bills are being duplicated, lamps being wrapped up, etc.

More outlets in the home mean more outlets for your appliance shelves—QUALITY ELECTRICAL WORK!

Mazda C Lamps in the Home

BY W. H. LUTHER

Relatively few Mazda C lamps are to be found in the home at present, notwithstanding the fact that there are many places in dwellings where the smaller sizes of the high-efficiency Mazda lamp might well be used. These lamps generally should be all-frosted or opaled for residential use in order to insure against eye discomfort or harsh lighting effects. The smallest size available is satisfactory in reading lamps. In the indirect reflectors of some portable units 100-watt lamps are desirable. Certain types of dining-room units—especially single-socket units—can be supplied to advantage with all-frosted 75-watt Mazda C lamps. In the ceiling fixture of the kitchen a 75-watt Mazda C or C-2 lamp (bowl frosted and well shaded) is a very logical lamp. The Mazda C-2 (daylight) lamp has also been installed in the laundry where its excellent color quality is found desirable. In various other semi-indirect or indirect units in the home the smaller sizes of Mazda C lamps should be introduced. In introducing Mazda C lamps into residential lighting care should be taken to urge the use of bowl-frosted or all-frosted lamps in order to avoid harsh effects.

Complete Daily Job Report

Charges and credits for material, the number and condition of the job, and the amount of straight time and overtime are all shown on a complete form of daily job report used by a Middle-Western contractor-dealer. This sheet measures 5 in. by 8 in.

DAILY TIME AND MATERIAL REPORT		
Condition of Job <input checked="" type="checkbox"/> FINISHED		Job No. <u>7-342</u>
CHARGE	MATERIAL	CREDIT
100 #14 wire		47
20 #14 wire		4
20 #14 wire		20
1 #14 wire		
10 " " plate		
Hourly { Regular Time <u>2</u> Overtime _____ Date <u>7/15/19</u> Workman's Signature <u>[Signature]</u>		

Simple report form which gives a Middle-Western contractor-dealer complete information on every job he handles.

The job number indicates that in the fourth year of the firm's existence (D) this is its 342nd job. One stroke of the pencil tells whether the job is finished or unfinished. It is easy to credit items not used and there is little chance of overlooking anything. The date and the workman's signature completes the report.

When the New Tenant Comes In

When the new tenant comes into a house or apartment wired for electricity, on the lines of the United Electric & Power Company, New York City, he finds a bright red card swinging from the chandelier, with a postcard attached addressed to the company.

The upper section informs him that the house is wired for electricity, and that to obtain electric light all he needs to do is to detach the postcard lower section and mail it to the company, with the name and address. The postcard asks an application blank for electric light. In this way time and trouble are saved both for the tenant and for the company.

Narrow Policies Toward Expense Accounts

At the Augusta group meeting a case was cited where an electrical supply house sent a repairman to a suburban town to put a vacuum cleaner back into service. The housewife offered the repairman a light lunch, consisting of soup, cake and a glass of milk. In the mid-afternoon, the repairman became hungry and expended the standard 50-cent lunch allowance of the house for a meal. When the repair job was billed, the customer was charged the price of the mid-afternoon lunch in addition to the machine maintenance work done. Complaint was brought to the repair house, which discharged the employee for "dishonesty." Thus ended the career of a man of seven years' service with the firm. In view of the money expended by this firm in pensions and other welfare work and its apparent desire to stimulate *esprit de corps* by all feasible means, such arbitrary action appeared unwarranted and a better instance of "how not to do it" would be hard to find. The old saw about "penny wise and pound foolish" holds good here as well as elsewhere.

Get After That Reflector Business!

BY FRANK FARRINGTON

You know enough, of course, about the value of reflectors in show windows to use the right kind yourself. And you keep the light on your displays instead of throwing it out into the eyes of the passers-by. But how about the other merchants in your town, or in your part of the city? Don't you know of plenty of stores where the windows are improperly lighted? Why not go after that reflector business?

On a showcard in your own window, call attention to the way it is lighted. Put in a big card, "Merchants! Are Your Windows Well Lighted?" or "Merchants! Are You Paying Too Much for Window Lights?" or "We Can Save You Money on Your Window Lighting." These cards, one at a time, will not interfere with your regular window display. When other store managers have seen them, if they do not come in right away to talk it over with you, they will at least welcome you when you call on them to make suggestions. Your prospects for business along this line advertise their need for help right in their own windows.

Here is a line of trade that few are getting. Go after this business. A walk down your street will tell you who your prospects are—it's up to you to make them customers.

Stand Up When Your Name Is Called

BY MONROE JOHNSON

To get the delegates at your convention acquainted with each other's names and faces, let the presiding officer ask each member present to rise and give his name, address and company connection. The presiding officer can even set the example by giving his own name and address, being followed by each member in turn, beginning with the front row and going on back through the audience.

Or, if a roll is regularly called, ask each member whose name is called to rise and give his address and company connection. In this way members who have been strangers learn to know each other's faces, and later make acquaintances that are often valuable in a business way.

Show Window, Counter, Mail Advertising and Specialty A Book for Farmers and Farmers' Wives

DEALER HELPS



What the Manufacturer Offers to Help You Get More Trade



A New Kind of Publicity to Spread "The Electrical Idea"

With its new booklet, "The Eight-hour Day in the Home," which it is now distributing, the Western Electric Company is marking a new epoch in electrical appliance advertising. The booklet does not mention Western Electric appliances specifically, and makes no effort to sell any, but treats merely of the much mooted subject, the question of doing housework under the present condition of servant shortage. The idea underlying this new venture in advertising is that selling the "electrical idea" rather than the products of one company will, in the end, be of greatest benefit to the electrical industry as a whole and to the company itself.

To begin with, the booklet is indorsed, in a foreword, by a recognized household economist, Mrs. Mae Savell Croy, whose own experience has convinced her that "the electrical way in the home—the use of the electrical articles listed in this book—will enable thousands of women to put their working schedule on an eight-hour basis." The succeeding pages are each devoted to one or more electrical labor-saving devices, showing their part in reducing labor in the home and making the eight-hour day possible. The upper half of each page is illustrated with a carefully made, tinted photograph of the housewife as she is using each appliance; the lower half of the page contains the text.

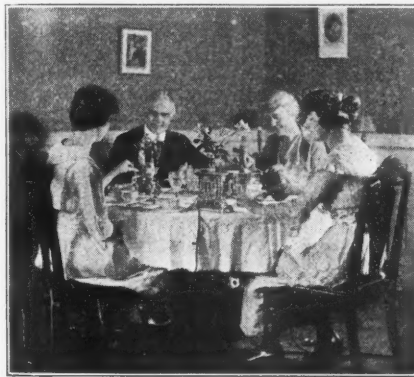
AN EIGHT-HOUR SCHEDULE IN THE HOME

Perhaps the most interesting part of the book is the last page, which offers in detail an eight-hour-day schedule which one woman has been following in her home for several years. The schedule is as follows:

FOR A FAMILY OF FIVE

7:30- 8:00 Prepare breakfast; put clothes to soak. (Monday.)
8:00- 8:30 Serve breakfast. (Make coffee at table in electric percolator.) (Make toast

at table on electric toaster.)
8:30- 9:00 Clear table, wash dishes in machine, brush up dining room and start clothes to washing in machine.
9:00-10:00 Monday—Wash clothes and put on line. (Wash curtains of one room each week.)
Tuesday—Iron clothes with electric ironer and electric glad iron.



"Beginning with breakfast, the electrical way in the home means added enjoyment and comfort"—an illustration in "The Eight-hour Day in the Home."

Wednesday—Clean second floor (including windows of one room each week) using vacuum cleaner.
Thursday—Clean silver, icebox and cabinets.
Friday—Clean third floor and basement.
Saturday—Clean first floor, including kitchen.
10:00-10:30 Marketing.
10:30-11:00 Rest and read newspaper.
11:00-12:00 Tidy bedrooms and place in fireless cooker any foods for dinner requiring long, slow cooking.
12:00-12:30 Prepare luncheon.
12:30- 1:10 Serve luncheon.
1:10- 1:30 Clear dining room and wash dishes in dishwasher.
1:30 Recreation (two afternoons each week devoted to sewing).
5:00- 6:15 Prepare dinner.
6:15- 7:10 Serve dinner.
7:00- 7:30 Clear table, wash dishes and place cereal in fireless cooker.
8 hours total

"Farming is an art. It is also a science, but above and including both, farming is a business and the successful farmer is a business man. The object of this book is to convince you that the purchase of Willys Light is good business. It is addressed to the progressive men and women who are engaged in agriculture and whose desire is to fill the lives of all farm folk with health, happiness, comfort and prosperity."

And nothing but the best for "the progressive men and women in agriculture" is evidently the policy of the Willys Light Division of the Electric Auto-Lite Corporation, Toledo, Ohio, for it has prepared for them a booklet of unusual merit, both from an artistic and a selling standpoint. Starting with a cheerful, bright-colored, human-interest cover, the booklet proceeds to give a short history of agriculture, of the evolution of the home, of the elimination of heavy labor on the farm and in the home, and finally, the bringing of "city comforts to country homes" with the supplying of power, light, heat and running water. Appeal is made to the farmer's wife by showing how electricity will help her in her laundry work and housework generally, and will keep her children healthy and contented by supplying light and water. Emphasis is placed on the comfort-producing results, rather than on the mechanical aspects of the plant—the latter points having been relegated to the three last pages. Attractive crayon sketches of farm scenes are scattered through the book and illustrate electrical comforts in the farmhouse.

Another unusual feature of the booklet is the plea made for the salesman, who is described as a necessary agent in all the great movements in progress and civilization. These two pages were certainly the result of a happy inspiration, and insure a more cordial reception when the salesman calls.

The Home Devices Corporation, 11 East Forty-second Street, New York City, has ready for distribution a folder describing in detail "the exclusive features of the Modern Home washer," the machine that "fits in any tub." The models described and illustrated are the stationary, portable tipping or rigid, round galvanized, ordinary round tubs, wash-boiler, and "nursery" types

About Silver-Plated Electrical Coffee and Tea Sets

Hotpoint electrical equipment is now provided in certain items of the 1847 Rogers Brothers silverware, thus enabling the housewife to have her electrical pieces in the same pattern as the rest of her table service. A handsome brochure is now being sent out by the Edison Electric Appliance Company, Chicago, featuring two of these sets, a silverplated tea set and a silverplated percolating coffee urn set. Each set is pictured in a full-page photographic insert, descriptive text being on the alternate pages.

A New Tool Rack

The Black & Decker Manufacturing Company, Baltimore, Md., is supplying to its stockjobbers a convenient metal rack, crowned with a colored enameled sign and suitable for displaying an electric valve grinder and four different sizes of Black & Decker portable electric drills. The rack is easily bolted together and set up, and provides opportunity for a display that not only serves as a reminder to the customer, but gives him the opportunity of handling and examining the tools themselves. The rack is supplied to stockjobbers free of charge.

The L. J. Wing Manufacturing Company, 352 West Thirteenth Street, New York City, has prepared an attractive and comprehensive booklet treating of Scruplex fans and exhausters. The booklet goes thoroughly into the subject of air deliveries. Other topics taken up are "general information concerning the use of fans," "proper selection of fan size," "why ventilation pays," "bases of calculation and location of fans," etc. Several pages of photographs show Scruplex fans installed in a small residence kitchen, in a large club house, and in industrial plants. An attractive feature of the booklet is the method of fastening together the pages with paper clips, so that the individual pages may be detached and replaced at will.

Harvey Hubbell, Inc., of Bridgeport, Conn., manufacturer of reflectors, plugs, sockets, lamp guards, switches, etc., has ready for distribution two attractive and forceful broadsides, designed to spread information about artificial illumination. One folder features Hubbell reflectors and the sim-

plicity of scientific illumination; the other, the protective value of Hubbell lamp guards.

"The Observations of Matt and Natt"

W. N. Matthews & Brother, St. Louis, Mo., have devised a novel method of getting over the selling points of their Holdfast lamp guards, in a new dealer help now being issued. It is in the form of a large envelope size folder which opens up to reveal the conversation of "Matt" and "Natt," whose genial faces appear on either side of pictures of the lamp guard which they are discussing. In this way, all the selling points of the article are reviewed in the every-day "shop" talk of the two wideawake mechanics.

The Vaile-Kimes Company, Dayton, Ohio, manufacturer of pumping machinery, has ready for distribution a handsome new catalog, "The Modern Way," designed to aid the home-owner in selecting a water supply system that will meet all possible requirements. The catalog is liberally illustrated, and, in addition to presenting general information on water supply systems,

describes in detail the "V & K" water power, electric and gasoline systems for rain water service, shallow and deep wells.

Two Separate Tax Exemptions of \$25 Each on Lamp and on Shades

A purchaser of a lamp and shade is hereafter entitled to two separate exemptions of \$25 each from (1) the amount paid for the lamp and (2) the price of the shade, in computing the tax, according to the latest announcement of the Commissioner of Internal Revenue of the Treasury Department.

The law has been amended to read as follows:

"For the purpose of the tax, portable lighting fixtures and portable lamps shall be deemed to include all lighting devices adapted for interior illumination and not designed to be affixed permanently in one location, and all articles commonly or commercially known as such, irrespective of the principle of illumination used. A portable lamp and shade, even though sold at the same time, shall not be regarded as a single item, but as separate items, and in computing the tax the purchaser shall be entitled to a separate \$25 exemption as to each item. For example, if the selling price of a lamp is \$50 and a shade \$30, even though the two articles are sold to one purchaser, the tax on the sale of the lamp will be \$2.50, and on the sale of the shade, 50 cents."

Pittsburgh Electric Shop in Holiday Dress of Bright-Colored Vines and Leaves



The Duquesne Light Company, Pittsburgh, Pa., has an unusually beautiful electrical shop, even in its everyday dress—and on special occasions its beauty is enhanced, not with expensive decorations, but with nature's own gifts, the vines and leaves of the field. Bright-colored vines, twined in and out of a balcony balustrade, as here, will make even a dingy shop beautiful. Another feature of the Duquesne shop is the glass-topped tables, one of which is seen in the foreground, holding electrical appliances.

GOSSIP OF THE TRADE



*Glimpses of Electrical Men as
Caught by Lens and Pencil*

Western Electric Company, Fifty Years Old, Commemorate Anniversary

Just fifty years—in 1869, to be exact—one Enos M. Barton, a young telegraph operator, with capital amounting to \$2,500, organized with Elisha Gray, who contributed a like amount, the partnership known as Gray & Barton, of Cleveland, for the purpose of doing a general electrical business. This firm was the predecessor of the Western Electric Manufacturing Company, which was organized from it in 1872; and this, in turn, was reorganized in 1881, as the Western Electric Company, an Illinois corporation. This year, then, in the words of Charles G. DuBois, present president, the Western Electric Company is celebrating the fiftieth anniversary of the birth of the organization—an organization which, he says, antedates by several years the oldest electrical manufacturing companies now in business.

In recognition of the anniversary, the November issue of *Western Electric News* appeared as an anniversary number, containing many articles and illustrations reminiscent of the company's early ventures, steady growth, and extraordinary achievements. Starting as a little shop manufacturing telegraph apparatus, the company's chief business after 1881 became the design and manufacture of central office and subscribers' station telephone equipment for the Bell system. An account is also given of the development of the company's electrical supply business—how in the earliest days it manufactured certain miscellaneous electrical products, and how from this early relationship of buyer and seller has evolved what is said to be the largest electrical jobbing organization in the world. The issue contains many articles on early conditions and the phenomenal growth of the industry.

Contractors' Day at San Francisco Electrical Development League

The San Francisco Electrical Development League on Nov. 10 held a luncheon meeting in the Palace Hotel, featuring "Armistice Day." Each league member brought as a guest a man connected with the electrical industry who had seen service in the World War, and the entire program made up a patriotic celebration most appropriate to the "one-year-after" season. Captain A. E. Graupner, Captain W. B. Mel and Lieutenant A. J. Callaway were speakers.

Captain Howard Angus, now secretary of the California Electrical Co-operative Campaign, told of the magnificent fighting of the American doughboy in the Argonne drive.

COMEDY WRITTEN BY CONTRACTORS PRODUCED AT NOV. 17 MEETING

A distinct triumph was scored at the League meeting held on Nov. 17 by the presentation of the rollicking contractors' comedy, "Take the Offmug Apartments F'rinstance." This play, depicting conditions in the electrical contracting business in "5000 B. C.," was written and staged by L. R. Ardouin, secretary of the San Francisco association of contractors and dealers. Members of the association who enacted this delightful bit of satire were C. J. Newbery, C. F. Butte, C. B. Kenney, Clyde L. Chamblin, E. E. Browne and Percy Schwartz. "Electrical Contractors' Day" at the Development League proved one of the most successful and best-attended meetings of the year.

Toledo Campaigns for Better Holiday Wiring

Offering the services of the city electrical inspection division to all merchants in arranging their electrical displays, J. W. Strub, chief electrical inspector for Toledo, Ohio, has sent letters to local merchants warning them of the danger of defective wiring, especially during the holidays. Mr. Strub suggests that if similar steps were taken in other cities, great loss from fire could be prevented. Containing a note of warning to merchants throughout the country, his letter says:

"There never was a time when I have felt more warranted in requesting your hearty co-operation in a special effort I am making at this season of the year to preserve the safety of the public and conserve the already inadequate supply of merchandise by bringing about the establishment of safe electrical conditions in connection with holiday displays. With your assistance this can be done without increasing your expenditures.

"Defective electrical wiring and apparatus, together with the careless arrangement of inflammable merchandise in dangerous proximity to the wires and lamps, constitute a menace which may be easily and cheaply avoided without sacrificing the effectiveness of the display. May I help you lay out the electrical

An American General in Command at Berlin; General Harries, Well-known Electrical Man, at His Headquarters on Unter den Linden

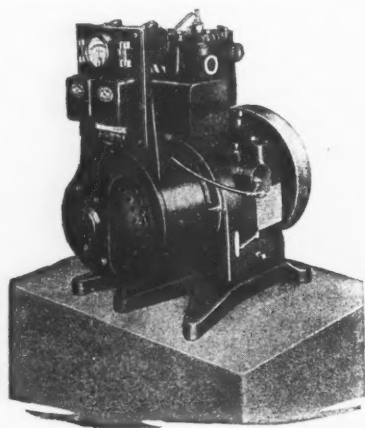


Brig.-Gen. George H. Harries, head of the American Military Mission for the repatriation of war prisoners, at his desk in his headquarters at the Hotel Adlon, Berlin, Germany, following the armistice. General Harries is a well-known electrical-utility official having served as president of central-station companies at Washington, D. C., Louisville, Ky., and Omaha, Neb., and since 1912 has been vice-president of H. M. Byllesby & Company. General Harries has a long military record, having first seen service when a boy as a scout under Generals Miles and Crook in Indian frontier wars. From 1897 to 1917 he was brigadier-general in command of the forces of the District of Columbia. During the Spanish War he served as colonel, and was in a number of engagements, including the siege of Santiago. General Harries was the ranking member of the three American officers first to reach Berlin after the signing of the armistice, and he remained in the German capital for a number of weeks while supervising the repatriation of war prisoners.

NEW MERCHANDISE TO SELL AND WHERE TO BUY IT

*Appliances, Socket Devices and Wiring Supplies Which
Manufacturers and Jobbers Are Putting on the Market*

Including Many New Appliances to LIGHTEN THE LABOR OF THE HOME



Unit-Type Light and Power Plant

From Electrical Merchandising, Dec., 1919

A compact, directly connected electric light and power plant has recently been brought out by the Perfection Storage Battery Company, 510 East Fortieth Street, Chicago, for use on farms and in isolated dwellings. It is automatic in operation—that is, closing the starting switch starts the engine automatically and when the generator has got up speed the battery commences charging automatically. When the battery is fully charged the engine is stopped by an automatic electric stop.

The engine of the plant is rated at 3 hp. and, according to the maker, will charge the battery and supply energy for lighting and motors and deliver belt power at the same time. It uses gasoline, kerosene or alcohol.

The generator is a 1200-watt style with form-wound armature coils and a large commutator. It is wound for shunt operation while charging the battery and compound with high torque for starting the engine.

The switchboard is bolted to the top of the generator. The battery cells are of the sealed-in type.

Mica-Top Fuse Plug

From Electrical Merchandising, Dec., 1919

The K-E mica-top fuse plug made by the Kirkman Engineering Corporation, 237 Lafayette Street, New York City, formerly had its fusible element exposed on the side of the plug, in order to hold the screw shell. It has now been improved, the maker says, by the provision of a solder slot in the wall of the porcelain, which not only conceals the fuse elements but prevents the screw shell from turning.

Portable Radiant Electric Heater with Two Coils

From Electrical Merchandising, Dec., 1919

Instead of one heating unit the No. 8 portable radiant electric heater made by the Majestic Electric Development Company of Philadelphia and San Francisco has two coils, each rated, at 480 watts. The new heater stands 17½ in. high, has a parabolic reflector of copper with a diameter of 13 in. and weighs 6¾ lbs.

Washer and Wringer for Application to Stationary Tubs

From Electrical Merchandising, Dec., 1919

An improved electric clothes washing machine and wringer which fits into a stationary wash tub is being marketed by the Home Devices Corporation, 11 East Forty-second Street, New York City.

The machine has an adjustable frame enabling it to fit various size tubs. Its ½ h.p. electric motor is fastened on one side of the frame with two wing nuts and the wringer also secured on the opposite side with two wing nuts. A flexible shaft conveys the power from the motor mechanism to the wringer. To eliminate friction, ball bearings are used at important points and bronze bushings are used on all remaining parts. The gear box is made of an aluminum die casting. The worm and worm gear, and the other gears, run in one housing, which is packed with grease. A simple safety friction clutch is employed, the maker states.

The holes in the washing cylinder are now crowned shaped in order to prevent buttons of the clothes from being caught.

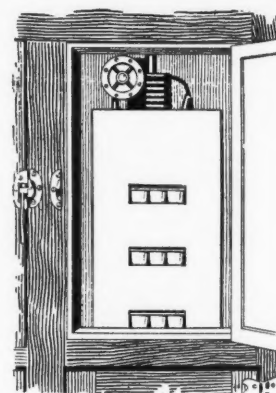
Electrically Operated Refrigerating Unit

From Electrical Merchandising, Dec., 1919

A new electrically operated refrigerating unit for home use has been developed by the Kelvinator Corporation of Detroit, Mich. Its brine or cooling tank fits into the ice compartment of any standard refrigerator while the motor, compressor and condenser are placed out of sight in the basement or garage where the vibration of the machinery causes no annoyance.

Refrigeration is accomplished by the evaporation of liquid sulphur dioxide within a coil of copper tubing which is immersed in the tank of calcium chloride brine. A ¼-hp. electric motor runs the compressor which pumps the gas from the coils of the brine tank and after compressing it forces it into the condenser coil. The latter, which surrounds the motor and compressor, cools the compressed and heated gas into a liquid after which the processes of evaporation and compression are repeated.

A thermostat control in the ice compartment of the refrigerator automatically opens and closes the motor circuit with the rise and fall of temperature between fixed points and so constantly keeps the food at the proper temperature.



There are openings in the brine tank in which freezing moulds or trays are slid so that ice cakes for table use may be obtained.

Electric Range for Automatic Cooking

From Electrical Merchandising, Dec., 1919

An automatic electric range, consisting of a Hughes No. 50 electric range to which time and temperature controls have been added has recently been announced by the Edison Electric Appliance Company of Chicago. The cooking equipment comprises four open-coil type surface units, each of different wattage, and all controlled by three-heat indicating snap switches. The oven units are two in number, each being of 1100-550-275 watts and the time and temperature control is installed in connection with them.

When it is desired to do "automatic" cooking one indicator on the dial of the control is set for the starting time and the other for the time when the cooking operation is to be completed. An indicating lever on the thermometer quadrant is then set for the desired temperature, which will be maintained but not exceeded during the entire cooking operation. A push button switch throws the automatic control attachment into circuit, and, after the food has been placed in the oven, nothing remains to be done except remove the cooked food when the meal is ready to serve.

The control uses a thermostat switch, the compound bar of which occupies a small rectangular box but a little more than an inch square in the upper left-hand corner of the oven.

The action of the automatic attachment is dependent upon a time mechanism, however; there are no alarm or time keys to wind, for the clock of the new range is electrically operated. The driving mechanism is a constant-speed motor, which drives a set of gears through a



train of double reduction worms; its function is to turn the current on and off, according to the adjustments made on the dial by the user. All cooking circuits are broken and closed through a G-E remote control switch.

Standard Edison-Base Cleat Receptacle

From Electrical Merchandising, Dec., 1919

A standard Edison-base cleat receptacle with a capacity of 660 volts on 250-volt circuits has been developed by the Kirkman Engineering Corporation, 237 Lafayette Street, New York City, and is known as K-E No. 50715. It is constructed of heavy porcelain and has exposed terminals. All contacts are of heavy gauge metal and designed for heavy duty. The receptacle is for use on open wiring and cleat work and is approved by the National Board of Fire Underwriters.

Motor-Driven Alarm Siren

From Electrical Merchandising, Dec., 1919

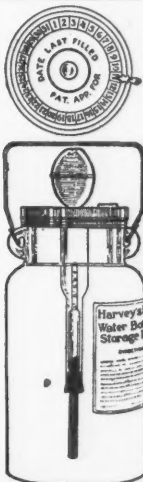
A motor-driven siren for use as a fire, burglar or disaster warning in public buildings, factories, mines, etc., and known as "Sterling," type F, has been placed on the market by the Inter-State Machine Products Company of Rochester, N. Y. It is equipped with an electric motor, designed especially for this service and furnished with a weather-proof housing for outside installation and also with an approved conduit connection for electric wiring. All parts are made from aluminum and copper.

Distilled Water Bottle and Storage-Battery Filler

From *Electrical Merchandising*, Dec., 1919

The "Genco" distilled water bottle and storage-battery filler which the General Scientific Equipment Company of North Philadelphia, Pa., has developed is made of glass, holds a half-gallon of distilled water, has a dial cap with a movable indicator to show the last date the battery was filled, while through the fiber cap, and down into the bottle, is a hydrometer syringe, which is used for transferring the water from the bottle to storage-battery cells, and testing the strength of the solution.

One advantage accruing from the use of this device is that the distilled water does not come into contact with metal nor is any dirt, dust or grease injected into the cells. Also, the maker points out, by using the syringe of the new outfit there is no chance of overflowing the cells and thus weakening the battery, as often happens when a funnel is used in filling.



Crystal and Alloy Radio Detector

From *Electrical Merchandising*, Dec., 1919

The feature of the "Crystaloi" wireless detector which has just been placed on the market by the Connecticut Telephone & Electric Company of Meriden, Conn., is that a comparatively large surface of a sensitive mineral is brought in contact with many points of a light, finely divided alloy which becomes a conductor only when traversed by high-frequency oscillations. This arrangement is said to render the wireless receiving apparatus very sensitive and free from static and other interferences. The new detector is placed in circuit with a buzzer without requiring the use of a battery or potentiometer.

Two types of the new detector are procurable. In type O, illustrated, the entire functional parts are inclosed in the cylinder and mounted with the terminals on a molded base. The type AA detector has a specially wound cohering inductance which causes the particles of alloy in the cylinder to adhere more closely, thereby reducing the internal resistance of the detector about 25 per cent. which, the maker says, makes it that much more sensitive.

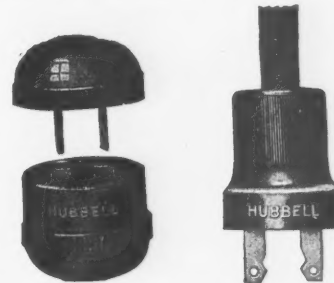


Cord Connector and Elongated Cap

From *Electrical Merchandising*, Dec., 1919

Harvey Hubbell, Inc., of Bridgeport, Conn., has recently added two new devices to its line of electrical specialties, a No. 6180 cord connector and a No. 6337 elongated cap.

The former, although small, measuring only 1 1/2 in. over all, is asserted to be sturdy enough for use with any appliance where a cord connector of 660-watt, 250-volt capacity is desired. The elongated cap is made of composition throughout and has a 1/2-in. cord hole for No. 14 and No. 16 reinforced cord.



Iron Conduit Caplets

From *Electrical Merchandising*, Dec., 1919

To separate and insulate the wires leaving the ends of exposed iron conduit "J. C. P." caplets, type AB, are now being manufactured by James C. Phelps of Springfield, Mass., and distributed by the Arco Electric Company, 114 West Forty-second Street, New York City.

The 1/2, 3/4 and 1 in. sizes of these fittings are fastened to the conduit with a lock-nut, which is inclosed in a threaded ferrule. This ferrule screws on over the porcelain and holds it on the conduit; it is made of brass and protects the porcelain from breakage. The lock-nuts cannot drop out and no special style of nut is required.

When the ferrule is unscrewed the porcelain is free from the metal parts, making it easy to thread the wire through the porcelain.

Strong Jar for Storage Batteries

From *Electrical Merchandising*, Dec., 1919

As a result of its efforts to develop an unbreakable jar for storage batteries the Electric Storage Battery Company, Allegheny Avenue and Nineteenth Street, Philadelphia, has brought out the "Giant" Jar for its "Ironclad-Exide" storage battery.

It is made of a semi-flexible compound said to be exceptionally tough and strong. Exhaustive tests are stated to have proved that these jars will stand a pressure of 2,000 lbs. at their weakest point, whereas the old type jar broke at less than 1,000 lbs.; that the new jar will support at its weakest point the weight of four men, whereas the old jar would not support the weight of one man; and that an electrical test of 30,000 volts does not puncture the new jar.

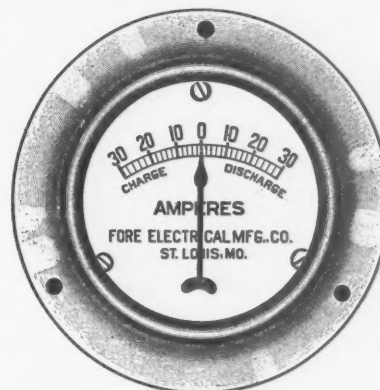
Auto and Motor-boat Ammeters

From *Electrical Merchandising*, Dec., 1919

Ammeters in both flush and front types and having standard ranges of 15-0-15 and 30-0-30 are now being made by the Fore Electrical Manufacturing Company, 5811 Easton Avenue, St. Louis, Mo., for use on automobile and motor boats.

The movement of the indicator hand of these instruments is declared to be dead-beat, all moving parts being assembled to a hardened steel shaft which is mounted on pivots. With this method of construction it is pointed out that the indicator hand instantly follows the smallest change in current flow, and as the torque produced by the magnetic field is very strong, the vibration of the car or boat does not affect the reading of the instrument. The scale board as well as the figures and letters are raised to facilitate quick reading.

These ammeters are both dustproof and waterproof.



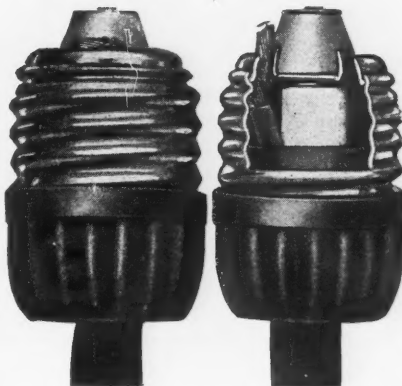
Swivel Attachment Plug

From *Electrical Merchandising*, Dec., 1919

A swivel attachment plug that is completely assembled when shipped and need not be taken apart to wire, and in which there are no screws, has been put on the market by the Cutler-Hammer Manufacturing Company of Milwaukee, Wis. It consists of an inner and an outer member revolving on each other. The wires are connected to the inner member, while the outer members comprise the ordinary screw shell and a knurled head made of heat-proof molded insulation.

In wiring the new plug two wires are stripped about 3/4 in., and one is pushed into a center opening of the inner member and the other through any one of four concentric openings of the same member. By means of a soldering iron one wire is then sweated in the center opening, while the other, after being turned over into a groove on the inner member, is soldered thereto.

After being attached to a cord there is said to be no possibility of the parts of the plug becoming separated when being unscrewed from a socket.



Automatic Time Switch for Electrical Appliances

From *Electrical Merchandising*, Dec., 1919

The current operating any electrical device can be automatically cut off at any time within two hours after it has been set, through the use of the "Universal" time switch now being made by the Philips Time Switch Company of Shelton, Conn. The danger of fire caused by neglecting to turn off the current to an electric iron can be obviated by using the new time switch. A small electric stove can be converted into an automatic electric cooker by installing the time switch, which can be set to turn off the current at the time when the food will be properly cooked. Electric fans used in cooling bedrooms can be stopped after the occupants have gone to sleep by the new switch. Washing machines can also be timed to stop after operating for 20 or 30 minutes thus preventing undue wear on the clothes from over-washing.



Here is John J. Gibson, manager of the supply department of the Westinghouse Company, snapped at Power Plant No. 1 of the San Joaquin Light & Power Corporation in California. Mr. Gibson is not smiling because he has just caught this immense salmon in the San Joaquin River, but rather he is thinking of that expression—"you poor fish," as he looks at Glenn E. Arbogast, president of the Southern California Electrical Contractors and Dealers Association shown at the left examining the fish. Mr. Gibson is saying this because he has just trimmed all of the electrical contractors and dealers, who have met at a little gathering in the Sierra Nevada Mountains to discuss electrical affairs, at shooting craps, and as a consequence he is quite to the point in his expression—"you poor fish."

details of any exhibit of this character which you contemplate making so that the fire dangers may be given consideration and safeguards applied?"

Underwriters' Approval to be Optional with Farm-light Plant Makers

A committee of the farm-lighting plant manufacturers' organization which is known officially as the Isolated Electric Plant Manufacturers' Section of the National Gas Engine Association, was asked to report on the benefit to be derived by having farm-lighting plants approved by the Underwriters' Laboratories, and whether, in the opinion of the committee, specifications could be arrived at that would prove satisfactory to the manufacturers. The report of the committee was presented at the meeting held in Chicago on Nov. 13 and 14. The advantages and disadvantages of having the plants approved by the Underwriters' Laboratory were stated to be as follows:

ADVANTAGES

Acts as guide to perfect design and makes the product as safe as practicable.

Prevents increase in insurance rates with stock companies in some districts, but does not decrease rates as should be with a device that eliminates the imminent dangers of lighting systems of the flame type.

It offers some sales advantages.

DISADVANTAGES

It retards the development of original ideas.

It encourages extreme requirements for construction tending to increase the cost beyond commercial limits.

It is a disadvantage to have Fire Underwriters' requirements cover structural details instead of confining same to fire prevention principles.

This report was accepted by the association in session, after which a motion was made and carried, that it was the sense of the association that the question of having plants approved by the Underwriters'

Laboratories was one that should be decided by the individual firm members for their own products, and not by the association as a whole.

At the same meeting it was decided to admit manufacturers of farm-lighting plant accessories to the association.

The membership was therefore divided up into four groups instead of the original two grades and members were assessed section dues in addition to the amount of their firm membership in the National Gas Engine Association.

The first group of members includes manufacturers, producers and national marketers of lighting plants. They will pay \$50 dues and will be entitled to three votes. A member may have any of its employees attend meetings. The second group is for manufacturers who build farm-lighting plants but turn their sale over to a specialty sales corporation and for the manufacturers of one or more component parts of an individual lighting plant. These parts are recognized to be prime movers, generators, switchboards and storage batteries. The members of this group pay dues of \$25 per year and are each entitled to two votes.

Manufacturers of accessories which are built into the lighting plant constitute the third group and the fourth group comprises the manufacturers of accessories and appliances used externally to the lighting plant itself. The third and fourth groups are each limited to fifty members, who pay \$10 dues and are entitled to one vote.

The chairman of the section must be a member of the third group but provision was made to give representation to all groups on the executive committee.

The Art Metal Manufacturing Company, of 1900 East Sixty-first Street, Cleveland, Ohio, manufacturing lighting fixtures, is building an addition to its factory.

Electrical Exposition Proposed for Toronto in 1920

The holding of an electrical exposition in Toronto early in 1920, and the possibility of having a building devoted entirely to electrical exhibits at the great Canadian National Exposition held each fall at Toronto, were among the suggestions proposed by J. M. Wakeman, general manager of the Society for Electrical Development, in a talk before the Toronto electrical contractor-dealer, on Nov. 24. Steps were taken to form a committee to perfect the plans.

H. H. Couzens, general manager of the Toronto Hydro-electric System; C. H. Wilson of the Apex Electric Appliance Company, George Beattie, the contractor-dealer, and Kenneth McIntyre, secretary of the association, also spoke on the co-operative work being done in Toronto, where the Society has among its members the Hydro-electric system and the Canadian General Electric Company.

Resolutions of "More Service Outlets Division," N.E.L.A.

At the recent meeting of the More Service Division of the Advertising and Publicity Service Bureau, N. E. L. A., in Chicago, a recommendation was adopted that electrical manufacturers, in illustrating applications of their devices in advertising, show appliances connected with baseboard and chair rail outlets rather



Probably if Russell H. Ballard, president of the National Electric Light Association, were asked to fit another set of words to those famous initials, N. E. L. A., his choice would be: "Nothing Endures Like Action." In his active campaigning to broaden the usefulness of the Association, Mr. Ballard has traveled thousands of miles already this year, and it speaks well for the stability of his good humor that even when snapped at the end of a weary ride he comes down smiling.

Three Hundred I.E.S. Banqueteers Put Aside Lumens, Foot-Candles, and Industrial Lighting Codes to Enjoy Social and Prandial Session at Convention of Illuminating Engineering Society at Chicago, Oct. 20-23.



than to lighting fixtures. A similar recommendation was made to portable lamp manufacturers, and manufacturers of wire and wiring devices were urged to include in their advertising copy an appeal to the public to use more outlets. Other resolutions aiming to give wider publicity to the convenient outlets movement were adopted, including a recommendation that central stations have some man in each company cultivate the acquaintance of architect in its territory and familiarize them with the advantages of specifying more outlets in their building plans. The name of the committee has now been changed to the "Adequate Outlets Committee."

Philadelphia Section Illuminating Engineering Society

The Philadelphia Section of the Illuminating Engineering Society held a meeting Nov. 21 in Baltimore as the guests of the Baltimore Consolidated Company Section, National Electric Light Association. Two papers were presented, one on "Industrial Lighting," by G. H. Stickney, past-president of the Illuminating Engineering Society, and the other, "Lighting and the Householder," by M. Luckiesh, of the General Electric Company. A number of Baltimore architects, consulting engineers, electrical contractors and dealers attended. Previous to the meeting a dinner was served at the Hotel Emerson.

The Electrical Supply Company is a new store in Yreka, Cal.

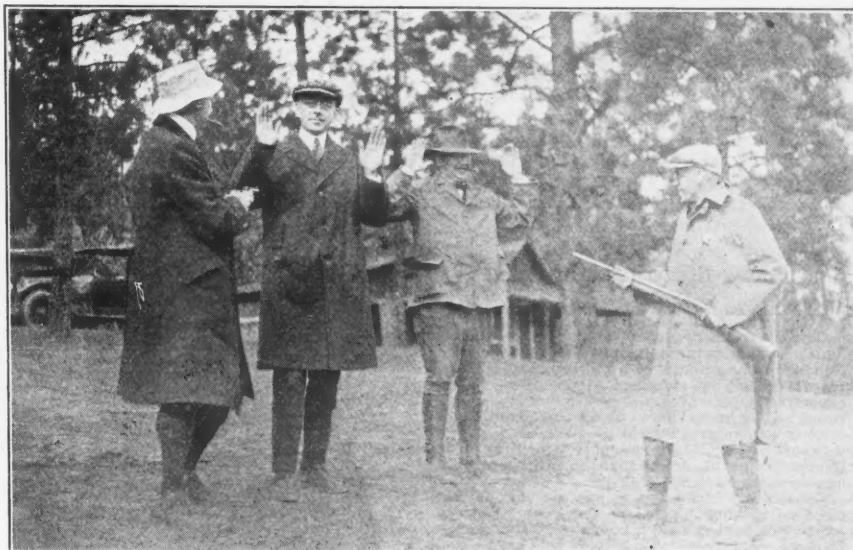
New Retail Electrical Stores

The Berg-Clark Electric Company recently moved from 10207 Euclid Avenue, Cleveland, Ohio, to an attractive new store at 10103 Euclid Avenue.

William Kral has just opened a store and office at 492 East Seventy-fourth Street, New York City, where he handles a full line of household appliances in addition to contracting.

The Teale Supply Company, 103 West Forty-first Street, New York City, was recently opened to deal in electrical, hardware and plumbing supplies. Leon Teale is the proprietor.

Hanson's Electric Company, 1214 Elk Street, Bellingham, Wash., has just moved into its new store at the address named, and is planning to increase its stock.



The man in the overcoat and cap, showing such a fine pair of palms, is Marshall Scobey, owner of the Home Electrical, a most enterprising electrical store in San Francisco, Cal. No, Mr. Scobey is not holding up his hands in despair because Bill Deming of the *Journal of Electricity* is on his left, and Dave Harris, sales manager of the Pacific States Electric Company is on his right, but because the gent with the "gat" is a special deputy sheriff and has caught all three of them shooting craps out upon the wilds of the Sierra Nevadas, where Emory Wishon, president of the Pacific Coast Section N. E. L. A. has just been holding a meeting of the California Electrical Co-operative Campaign in the mountains of California.

"Daylight" Lamp for Store Use

From *Electrical Merchandising*, Dec., 1919

A portable color-matching light for use in dry-goods, jewelry, haberdashery, department, and similar stores where illumination approximating daylight is desired has been brought out by the National X-Ray Reflector Company, 235 West Jackson Boulevard, Chicago, and is known as the Curtis "X-Ray Tru-Daylight." No colored lamps or diffusing plates are used in the new unit, the white light being secured through the use of a blue crystal glass, silver-mirrored, reflector using a 25-watt, round bulb, frosted tungsten lamp.

The light, which is designed for placing on show cases and tables, stands 16 $\frac{1}{4}$ in. high and is finished in dull black. It comes supplied with a lamp bulb, a switch and plug, and 8 ft. of cord.



Semi-Dry and Liquid Storage Batteries

From *Electrical Merchandising*, Dec., 1919

Semi-dry and liquid storage batteries of the pasted-lead plate type have recently been developed by the Gem Storage Battery Company, 343 South Dearborn Street, Chicago, Ill.

The semi-dry batteries employ a container of transparent celluloid within which are placed two plates with a corrugated celluloid separator between; the plates being surrounded by an absorbent material that is not affected by the acid. This material is said to contain no sodium nor does it solidify with age. These batteries are furnished in cells of 2 amp. hr. capacity. The single units may be used in flashlights or hand lamps, phones for the deaf, medical diagnostic lamps, surgical cautery loops and for all purposes requiring a constant current flow. For radio vacuum tube work, which requires potentials of from 20 to 60 volts these cells are assembled in

units of ten individual cells, in an outer celluloid container, the whole being inclosed in an oak case, supplied with a handle for carrying about. One advantage of these unit assemblies is that should one cell of the lot be damaged it may be replaced by the use of a soldering iron.

This semi-dry type battery can be fully charged, the maker states, and allowed to stand for a long period without recharging being necessary. The water in the cell will gradually evaporate until no liquid remains. The negative plate will absorb all the oxygen it can take up and the plates will become not more than 50 per cent. sulphated. The cell may be restored to full charge at any time by filling it with distilled water and putting it on charge at $\frac{1}{2}$ th amp.

These batteries also are made to use free liquid electrolyte in nearly non-spillable form. This type battery is declared to have all the advantages of the semi-dry style with the addition that it may be charged at a higher rate. Also the liquid batteries, it is stated, can stand on open circuit for about a month before the cell potential reaches a point requiring a freshening charge.



Flood Lighting Projector

From *Electrical Merchandising*, Dec., 1919

For flood-lighting signs, theater-fronts, etc., the Universal Electric Stage Lighting Company, 240 West Fiftieth Street, New York City, is making its "Midnight Sun" flood-light No. 3290. It is designed for intensive brilliancy and wide-spread, well-diffused illumination.

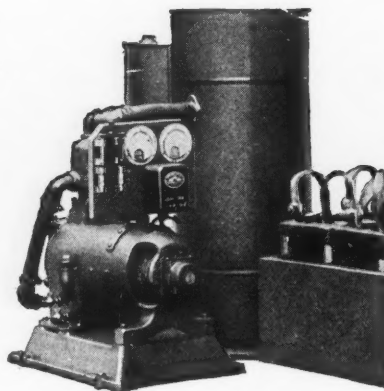
The parabolic-shaped reflector of this unit is made up of individual strips of glass, giving the diffusing characteristics of a corrugated reflector. The lamp housing or casing is of copper and is said to be well ventilated. The lamp socket has a rain shield and the lamp bulb is inclosed in a heavy, curved, heat-resisting glass cover making it water-tight for outdoor use. The new unit has a coating of aluminum paint which renders it inconspicuous during the daytime. Nitrogen lamps of 500, 1000 and 1500 watts may be used in this flood light which can be supplied with special brackets, stands or suspensions, when desired.

1-kw. Electric Light Plant

From *Electrical Merchandising*, Dec., 1919

The Universal Products Company of Sandusky, Ohio, is now manufacturing directly-connected electric lighting plants of 1-kw. capacity. These plants utilize a standard, four-cycle, water-cooled, poppet-valve, single cylinder engine rated at 1 $\frac{1}{4}$ hp. This is direct-connected to an electric generator running at 1250 r.p.m. The flywheel and armature assembly is held in place by a single locking nut so that the entire assembly can be easily removed.

Lubrication is by the splash system, an oil-tight gage being placed on the base. Battery ignition is used, giving a hot, steady spark even at hand cranking speed. The switchboard panel is of asbestos and slate composition and contains a Sangamo meter, an automatic cutout, and a two-pole line switch which controls the line circuit. When the storage battery is fully charged the engine is shut off.



Electro-Medical High-Frequency Outfit

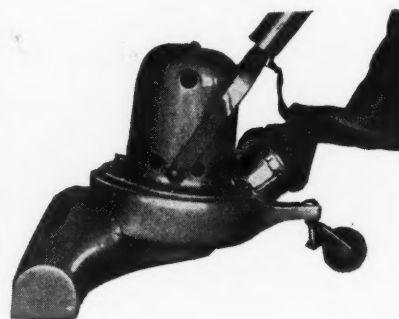
From *Electrical Merchandising*, Dec., 1919

An electro-medical high-frequency generator operating on alternating current or direct current circuits of 110 volts and giving three intensities of high-frequency current has been recently developed by the Bleadon-Dunn Company, 326 West Madison Street, Chicago, and is known as the "Multifrex." The new outfit weighs but 7 lb. with cautery and diagnostic lamp attachments.

Vacuum Cleaner with Swivel Rear Wheel

From *Electrical Merchandising*, Dec., 1919

The addition of a swivel rear wheel on its electric vacuum sweeper is announced by the Federal Electric Company of Chicago. This is designed to make the cleaner more efficient and easier to operate, making it possible for the operator to turn the machine in any direction and without derangement of rugs, carpets, etc.



Portable Air Heater

From *Electrical Merchandising*, Dec., 1919

A portable electric air heater which circulates its heat on all four sides has been brought out by the Equator Manufacturing Company of Hamilton, Can., for use in bathrooms, nurseries, sick-rooms, etc. As it has a flat top the heater can be used for boiling and heating liquids, etc. Nickel chromium resistance wire is used in making the heating units. The heater is mounted on four feet and is provided with an attachment plug and 8 ft. of cord.

Reel Equipped Extension Lamps

From *Electrical Merchandising*, Dec., 1919

Two styles of its "Reelites" are announced by the Anderson Electric Specialty Company, 118 South Clinton Street, Chicago. One is a drop-cord fixture type with 12 ft. of cord and socket, for use in machine shops, providing flexibility of lighting. The other is a portable-lamp type with 25 ft. of cord, being suitable for use in garages, machine shops, etc.

The base of these lamps can be attached to a 4-in. outlet box or directly to the ceiling. The cord winder is a four-spring type designed to stand severe use. Approved reinforced cord is used in the reel, which operates like a window-shade roller.

Utility Electric Ironing Set

From *Electrical Merchandising*, Dec., 1919

A utility electric ironing set which, because of the small space it occupies, is said to be particularly useful when traveling or on the dressing table has been announced by the Edison Electric Appliance Company of 5660 West Taylor Street, Chicago. It consists of a 3-lb. electric flatiron, a folding curling iron and a collapsible stand for the flatiron which can also be used for inverting the flatiron to heat the curling iron or for use as a small cooking stove.

The flatiron differs from the standard "Hot-point" iron only in that it has no attached stand and has two holes in the rear for the insertion of curling irons so that two irons may be heated at the same time.

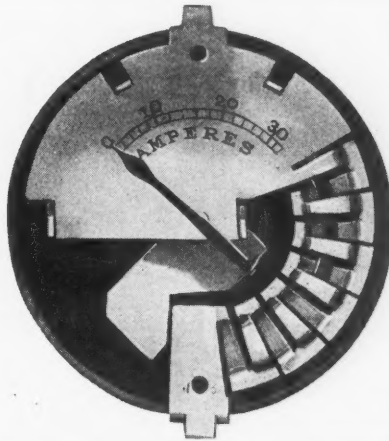
The utility set fits into a folding box having four cloth-hinged wooden sides and which is approximately 8 in. X 5 in. X 4 in.

The feature of this box is that when unfolded flat it becomes a handy ironing board with a surface 16 in. X 8 in. Thus the inconvenience usually experienced by travelers in not having suitable ironing surface is done away with.

Simply-Constructed Ammeter

From *Electrical Merchandising*, Dec., 1919

The feature of the new ammeter being made by the Metric Appliance Corporation, 299 Broadway, New York City, is a coil or solenoid, punched from a piece of flat sheet brass. This punching serves not only as a coil but also as the dial of the ammeter, the terminals, the mounting, and in addition it assists in holding the glass and the cover of the meter. A stamped armature carrying the indicator is placed on a pivot fixed in the brass punching and the whole mechanism is mounted in a composition case, thus making an ammeter of simple design and construction.



Fuse Plug

From *Electrical Merchandising*, Dec., 1919

An Edison type porcelain fuse plug rated at from 3 to 30 amp. is now being made by the Whittman Electric Manufacturing Company, 352 South Avenue, Whitman, Mass. It has passed the requirements of the Underwriters' Laboratories.

Adjustable Handle Suction Cleaner

From *Electrical Merchandising*, Dec., 1919

For the convenience of people of different heights and for cleaning at different levels as on steps, the Royal electric cleaner made by the P. A. Geier Company, Cleveland, Ohio, has been equipped with a rack on which the handle may be set at any angle by means of a wing nut. When the machine is not in use the handle may be put in the upright position where a spring catch holds it.

Radiant Heater for Automobile Radiators

From *Electrical Merchandising*, Dec., 1919

To keep the radiator and engine of an automobile from freezing in cold weather while the car is in the garage, an electric engine and radiator heater has just been placed on the market by the Majestic Electric Development Company of Philadelphia and Chicago. The heater is installed on the outside of the car, hanging from the radiator filling cap and resting against the radiator. It is of the radiant reflector type, and directs the heat waves through the radiator into the engine. In this way it is said that the entire cooling system is warmed and the water is always kept at a temperature above freezing. The new heater has a current consumption of 200 watts an hour and can be connected to the ordinary lighting socket.

Safety Starting Switch for Small Motors

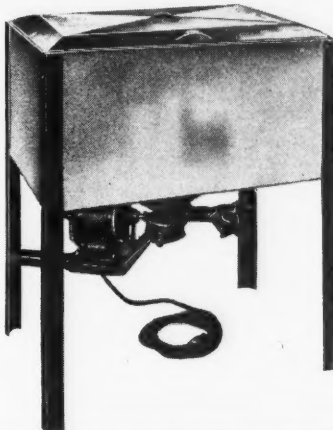
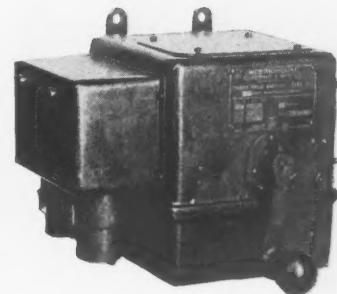
From *Electrical Merchandising*, Dec., 1919

Safety for the operator, safety for the motor and equipment and safety for itself are three features embodied in the type 815 starting switch for small induction motors that has just been put on the market by the Westinghouse Electric & Manufacturing Company of East Pittsburgh, Pa.

The action is automatic and consists of strong springs attached to the contact parts and controlled by a trigger which is released by overload, failure of power or by hand. When the switch passes the neutral point the spring snaps it the rest of the way. Upon the return of power the handle must first be moved to the reset position and then to the running position, in order to start the motor.

The overload relay may be set to open the switch at any desired point. It is provided with oil dash pots so that small peak loads and the starting current can be carried without interruption of service. The new switch uses no fuses and has an automatic reset.

Asbestos barriers between the sets of adjacent contacts permit the omission of switch oil. This switch has been approved by the National Board of Fire Underwriters and is made in two sizes each for use on two-phase and three-phase motors of 10 hp. or less, while type No. 816 starts motors up to and including 25 hp.



Portable Storage-Battery Cell Tester

From *Electrical Merchandising*, Dec., 1919

A portable and easily operated storage-battery tester has been placed on the market by the Service Station Supply Company, 30 East Larned, Street, Detroit, Mich. It is called the "Hyrate" cell tester and consists of two steel prods, which are placed on the terminal posts of the cell, and a voltmeter for indicating the condition of the cell under a heavy discharge. A nickel-chromium resistance connects the prods which terminate in an insulated handle.

The voltmeter, suspended on props between the prods, is small in size, of the moving coil type and has a scale reading 2-0-2. Because of the center zero dial it is not necessary to turn the tester around when passing from one cell to another in the same battery.

Single-Tray Electric Dish-Washing Machine

From *Electrical Merchandising*, Dec., 1919

A new electric dish-washing machine, the "Mermaid," attractive in appearance and designed to wash and rinse all dishes and ordinary kitchen pans in less than four minutes, has been put on the market by the Wolcott Manufacturing Company, Hartford Conn. The tank is rectangular in shape, and is fitted with a single, portable tray designed to accommodate all flat china, glassware, cups, bowls, odd-shaped dishes, big platters, large kitchen knives and spoons, and pots and pans of ordinary size. The dasher is underneath the tray, and throws the water upward, the full force being directed against the flat china and silver, and the glasses and cups being struck with less force, to avoid breakage. The dishes remain stationary, the machine operating with only a slight vibration and without noise.

Simple Glass-Contained Fire Extinguisher

From *Electrical Merchandising*, Dec., 1919

A fire extinguisher which uses a glass container instead of a metal one and which is consequently said to be free from corrosion and light in weight, has been developed by the Carbona Products Company, 302 West Twenty-sixth Street, New York City. It employs no mechanism for operation; instead it is fastened to the wall or station with a screw joined to a staple running through the cork of the container. To use the extinguisher it is pulled, releasing it from the cork which remains on the screw. The extinguishing liquid is then emptied on the fire. When this liquid strikes the flame, the maker says, it exudes a heavy dense vapor which displaces the oxygen about the fire and so extinguishes it.

Safety Starting Switch for Small Induction Motors

From *Electrical Merchandising*, Dec., 1919

To make the starting of small induction motors safe and "fool-proof" the Electric Controller & Manufacturing Company of Cleveland, Ohio, has just developed a push-button alternating-current switch which is said to operate on a principle entirely new in motor-starting practice.

The illustration shows the new starting switch with the cover of its steel box open. On the left-hand side will be noticed two wires extending the length of the slate. These are said to give overload protection of the inverse-time-element type both while the motor is starting and while it is running. The two wires are stretched, and the operating value of this overload protection is adjustable by changing the tension of the wire. If too much current is being taken by the motor, these wires expand, causing the small contact at the bottom to be opened, and this will in turn de-energize the magnet coil and cut the motor off the line. It is then necessary to push the "start" button before the motor can again be started.

The steel box inclosing the switch has conduit connection for all wires. To start or stop the motor it is only necessary to push the proper button.



Electrical Co-operative Campaign Planned for Washington and Oregon



At the recent convention of the Northwest Electric Light & Power Association, held at Seattle, Wash., it was determined to institute a co-operative movement throughout the Northwest which shall parallel the work of the California Electrical Co-operative Campaign in that region. Committees are to be appointed from the various branches of the industry which will visit California and study into the methods of the campaign which has there been doing such

excellent work, with a view to adapting suggestions to Northwestern conditions. O. B. Coldwell, Superintendent of the Portland Railway, Light & Power Company, has been appointed chairman of the committee from the Northwest Electric Light & Power Association, and expects to visit California at an early date to familiarize himself with the methods employed there and apply them to the new movement in the Northwest.

Fred J. Nolte, electrical contractor, has moved from his office at 474 Fiftieth Street, Brooklyn, N. Y., to 5606 Fifth Avenue, Brooklyn, where he has a combined office and showroom for the sale of electrical appliances.

The All Bright Electric Specialty Company, of which M. D. Perelman is proprietor, has just opened an office for the sale of appliances at 26 Court Street, Brooklyn, N. Y. The concern is making a specialty of lamps.

The Piedmont Electric Company of 3978 Piedmont Avenue, Oakland, Cal., has opened a branch retail store at 1629 San Pablo Avenue, Oakland. The branch store, which is known as The Edison Shop, is under the management of H. N. Young, and will carry a complete line of merchandise. Lee D. Gilpin is manager of the Piedmont Company.

E. L. Bennett, formerly sales manager of the Crystal Washing Machine Company, Detroit, is now general sales manager of

the new Air-Way Company, Toledo, Ohio, manufacturer of electric cleaners. Mr. Bennett has had thirteen years experience in his line. At one time he was with the Brokaw-Eden Company, and for five years he was engaged in retail merchandising.

C. H. Champion, of Champion & Ryan, Inc., 299 Broadway, New York City, who has been traveling through England, France and Italy on behalf of his company, has just returned to America. Mr. Champion brought with him full particulars of electrical and mechanical supplies and specialties required by these markets, and will communicate this information to American manufacturers. Champion & Ryan are importers and exporters.

T. H. Bibber has severed his connection with the sales organization of the Luminous Unit Company (Brasco-Lite). Mr. Bibber may be addressed at Room 179, 50 Church Street, New York City.

The Trumbull Electric Manufacturing Company of Plainville, Conn., announces the appointment of M. L. Spaulding as manager of its Chicago office, 40 South Clinton Street. Mr. Spaulding was formerly a member of the Chicago sales force of the company, but left two years ago to become general sales manager of a Middle West electrical supply jobber firm. He has been in the electrical business for many years.

The St. Paul Electric Company, St. Paul, Minn., announces that it has been appointed agent-distributor for the Northwest territory by the Westinghouse Electric & Manufacturing Company. D. S. Spector, sales manager, plans to carry a complete stock of Westinghouse products, for which he is setting aside an entire floor in the company's building. M. R. White is in charge of the engineering department for the proper installation of Westinghouse apparatus. "This Westinghouse agency," says Mr. Spector, "will, in addition to the other manufacturers whom we represent in the Northwest, enable us to handle everything that either makes or uses electricity, and we are in a position to supply everything from a socket bushing to a steam driven turbo generator."

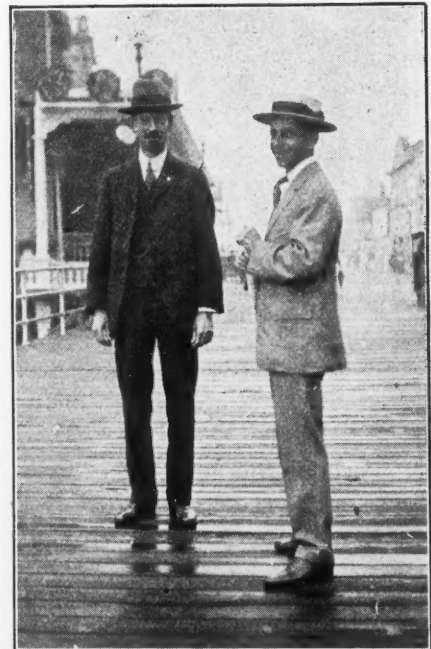
C. H. Ehret, who has been general manager of the Welsh Armature Company, of Welsh, W. Va., has purchased a con-

trolling interest in the Ohio Mining & Machine Company, at 323 Mount Vernon Avenue, Columbus, Ohio, and will conduct the business in the future under the name of the Ehret Electric Company. He is a former Columbus man and has been engaged in the electrical business for the past sixteen years. He will specialize in the repair of electrical motors.

S. H. Gillerup, 130 East Fifteenth Street, New York City, formerly advertising manager for the United Electric Light Company, has resigned his position with that company to become sales promotion manager for a leather company in Boston. Mr. Gillerup has also resigned his position as first vice-chairman of the Advertising and Publicity Service Bureau, Commercial Section, N. E. L. A. I. W. Alexander of the San Joaquin Light & Power Corporation, Fresno, Cal., is to be appointed to that position.



The fruit of the golf plant (*sphericum swatibus*) is a white resilient ball. While it is occasionally found on lawns, or greens, its normal habitat is in "the rough." Here we have Walter M. Stearns, supervisor of the nickel-chromium heating-appliance patents, General Electric Company, out with his basket for a mess of the succulent missiles.



There are some men in the presence of whose intellectual endowments and wide erudition even a professional editor and fact-artist like ourselves must forever stand meek and abashed. Such a scholar, scientist, and pleasant gentleman withal is Dr. Morton Githen Lloyd of the Bureau of Standards, Washington, D. C. and of National Electrical Safety Code fame, who is here seen conversing in the language of scientists with M. H. Wagner, also of the Bureau aforesaid, formerly with the Dayton Power & Light Company.

Start the Electric Year Right

G-E Twin Outlet Plug permits use of two appliances at same time.

G-E Cord Cong. motor makes extension to appliance easy.

Wayne Bell-Ringing Trans. former takes the place of batteries.

G-E All-Nite-Lite "Some light all night."

G-E Quad Receptacle permits connecting four appliances at same time.

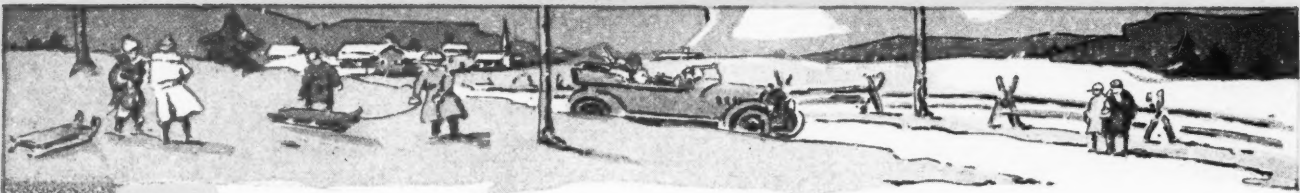
G-E Twin Receptacle permits use of two portables at same time.

G-E Thru Cord Switch makes it easy to turn current on and off.

THE sale of G-E packaged specialties strengthens the hold of electricity upon the public and expands the electrical way of doing things.

Make 1920 a truly electrical year—start the good work with G-E packaged specialties.

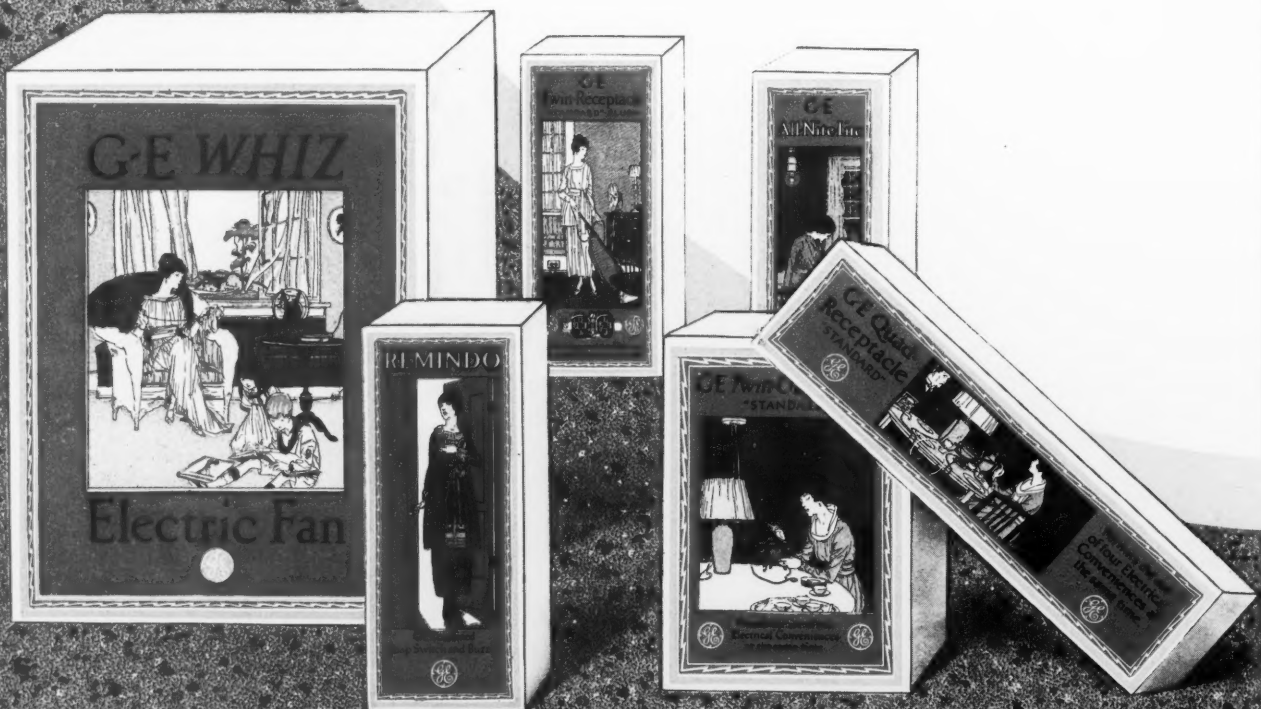
General Electric Company
General Office Schenectady, N.Y.



G-E Packaged Specialties

The electrification of modern living depends upon the education of the public, generally, to the electric way of doing things. Every process in home, office or factory that can be performed electrically is an opportunity for the electrical dealer.

Every electrical device that is introduced helps toward the ultimate end of complete electrification not only in its own province but by increasing the desire for other electrical helps to better living.



General  Electric
Company

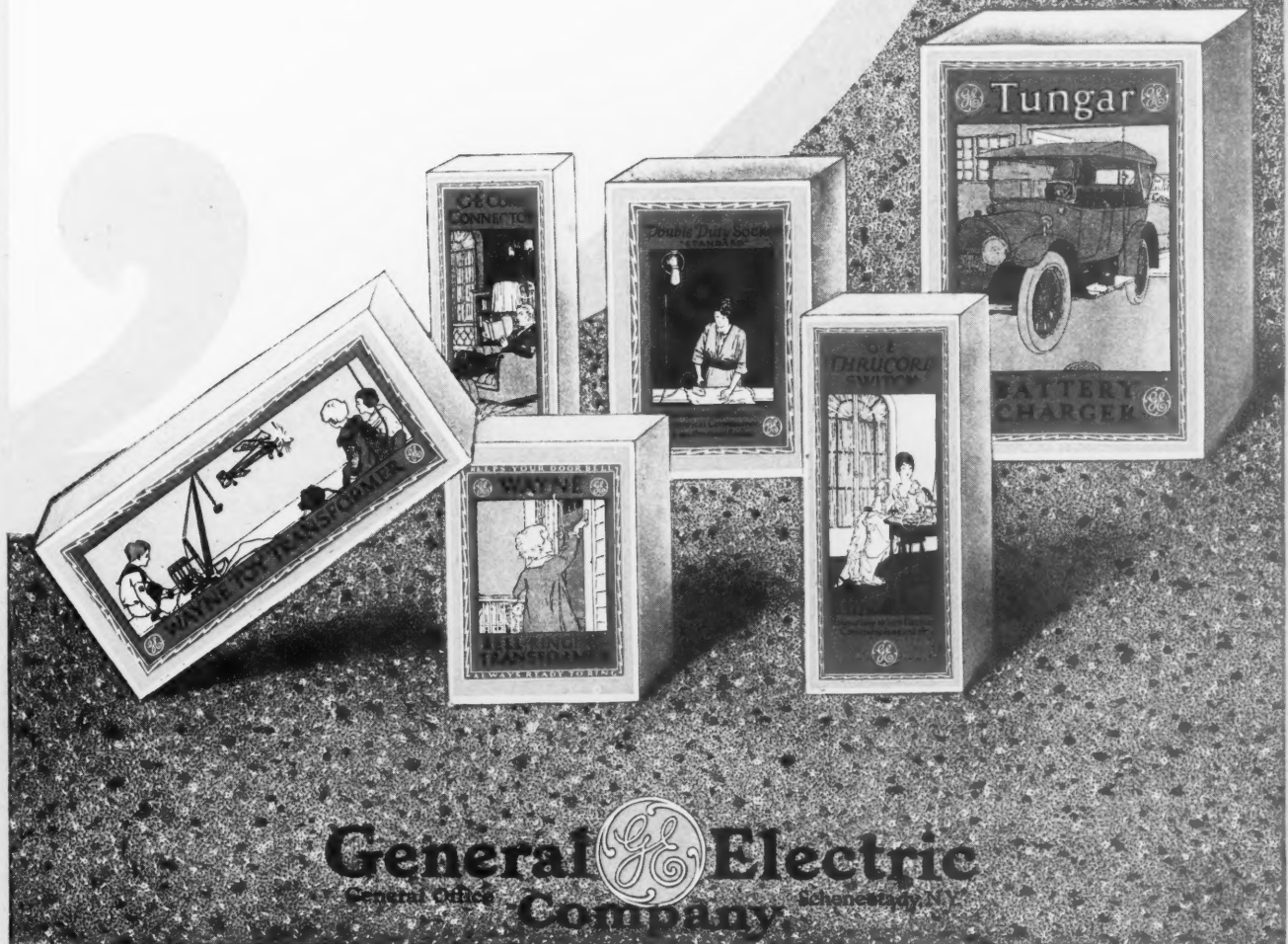


and the Electric Idea

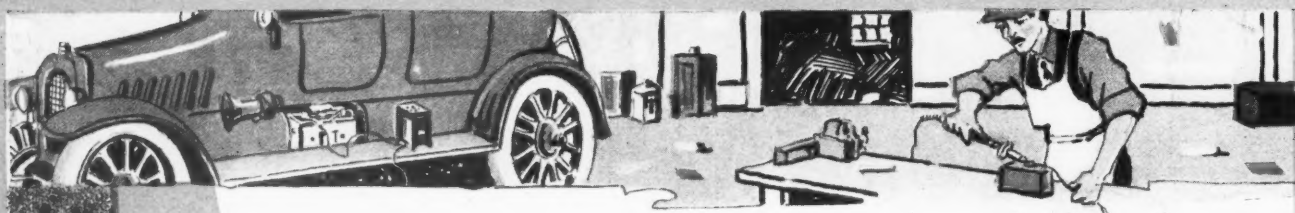
G-E packaged specialties are thus important "entering wedges" for complete electrification.

Their colored labels attract favorable attention, the suggestive titles stimulate desire, and their "ready-to-use" convenience impels decision to buy. Thus they fulfill every function of a good selling display.

Once sold, any one of these specialties leads to sales of others and the way to complete fulfillment of the electric idea is open.



General Electric
General Office Schenectady, N.Y.
Company



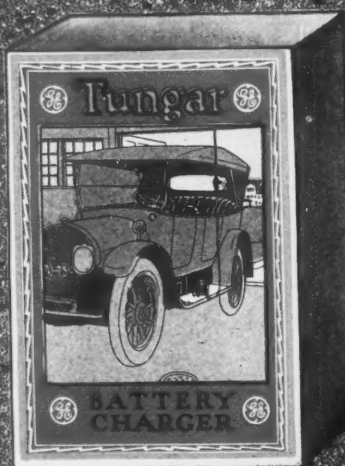
Electrical Helps

Motorists are good prospects for the G-E soldering iron and the Tungar battery-charger.

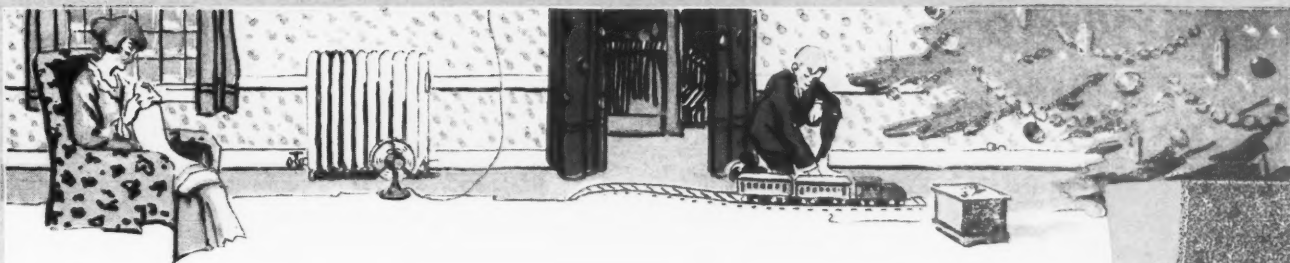
There are lots o' little jobs about the car that get done during the winter when it is too cold to tour. The G-E soldering iron can help in many of these—it is convenient for working in places that are hard to reach and its heat is uniform and continuous while the current is on.

The Tungar battery charger will keep a storage battery full of "pep" in spite of the heavy requirements of winter starting and lighting. If the car is "put up," an occasional charge is necessary to keep the battery in good condition.

Good booklets to hand to your customers are B-3574 on the soldering iron and B-3532 on the Tungar.



General  Electric
Company

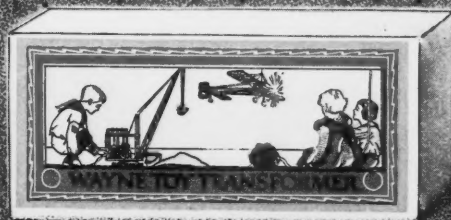


to Winter Living

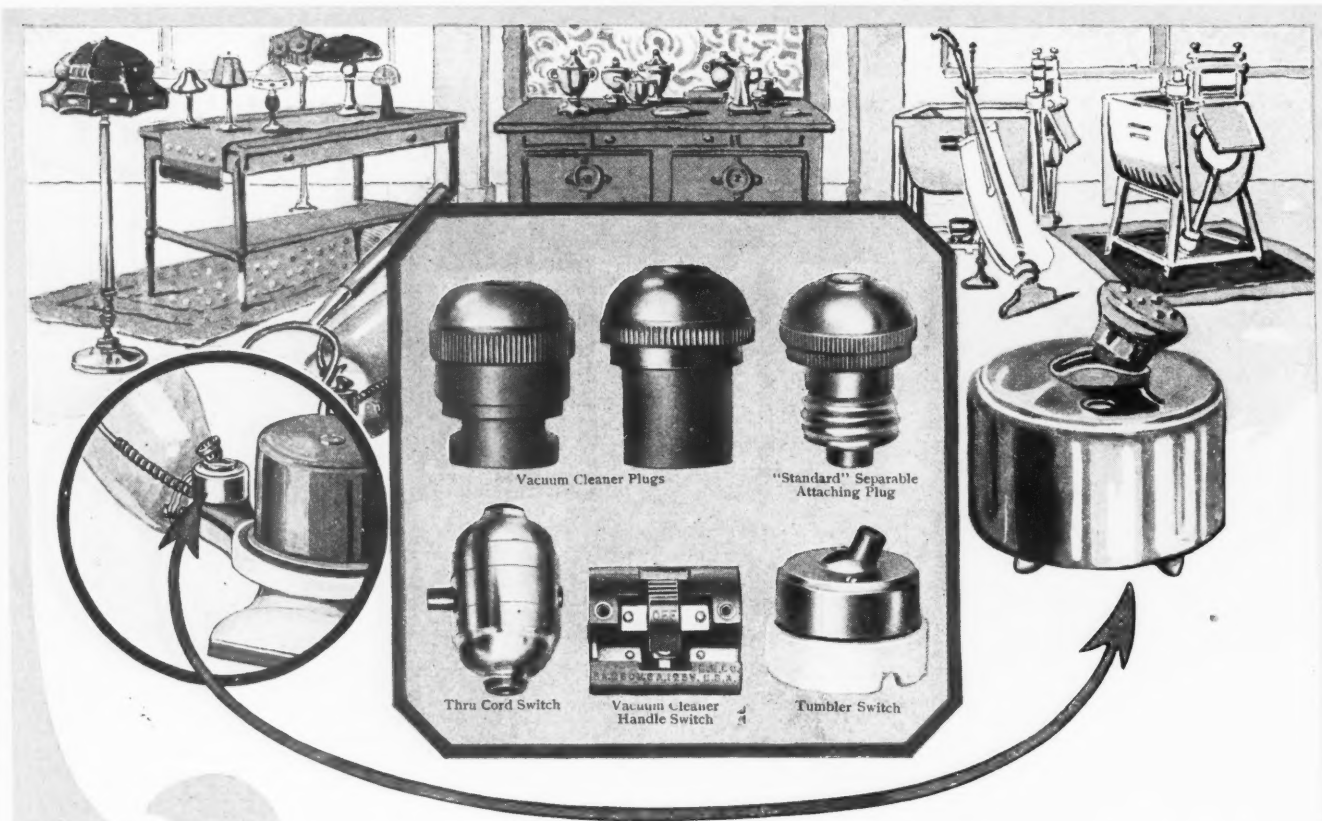
In the home, the toy transformer is a big help in entertaining the children during the shut-in season. It operates electric toys of all kinds from the lighting circuit without any need of dry batteries. Booklet B-3525 will help you sell G-E transformer specialties.

The G-E electric fan will aid any heating system, no matter what kind it is. It distributes the heat from hot air, steam or hot water radiators, increasing the warmth of the rooms without added fuel consumption.

Tell your customers to try out these suggestions. The results will amply justify any trouble you may take. Send for campaign folder Y-1336. It tells how to sell fans in winter.



General Electric Company
General Office  Connecticut, N.Y.



A Tumbler Switch for Appliances

The G-E Tumbler Switch, with its sturdy, quick-make-and-break mechanism, offers maximum convenience for foot or hand control of vacuum cleaners, washing machines, etc.

It is one of the complete line of appliance devices manufactured by the General Electric Company. Our specialists will gladly consult with you.

Appliance Dealers

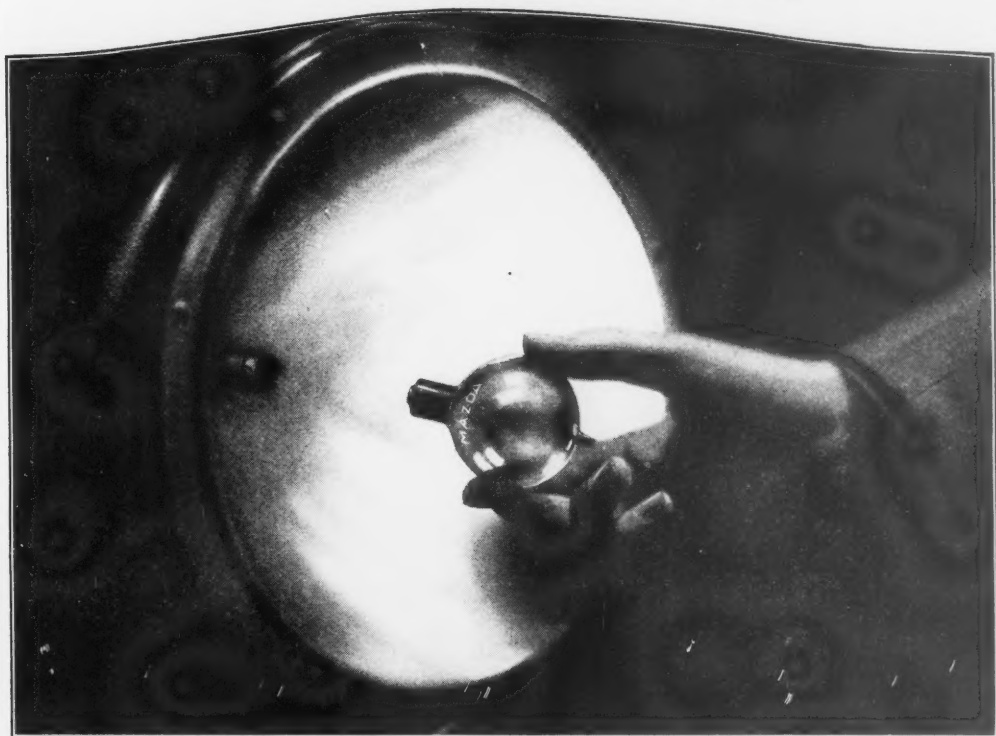
Motor-driven appliances, the mainstay of the electric idea in the home, should prove easier to sell when wired with devices of known reliability.

General Electric
 Company
 Schenectady, N. Y.

THE electric idea has already been well developed in the automobile field, for now most cars are electrically lighted and started and equipped with electric conveniences. For safety's sake a lamp in every socket should be the rule and a spare set in the tool-box.

MAZDA

"Not the name of a thing, but the mark of a service"



Dependability or Doubt—Which do you put in?

Headlight dependability comes only when the lamp bulb itself is dependable. With the MAZDA Lamp, sun-like safety on night roads is assured through the reliability which MAZDA Service has put into every lamp marked MAZDA. Be sure the lamps on your car are marked MAZDA.

MAZDA is the trademark of a world-wide service to certain lamp manufacturers. Its purpose is to collect and select scientific and practical information concerning progress and developments in the art of incandescent lamp manufacturing and to distribute this information to the companies entitled to receive this service.



MAZDA Service is centered in the Research Laboratories of the General Electric Company at Schenectady, N. Y. The mark MAZDA can appear only on lamps which meet the standards of MAZDA Service. It is thus an assurance of quality. This trademark is the property of the General Electric Company.

RESEARCH LABORATORIES OF GENERAL ELECTRIC COMPANY



Where to Get G-E Service

To insure correspondence against avoidable delay, all communications should be addressed to the G-E sales office, G-E distributing jobber, or G-E foreign representative nearest the writer.

G-E Sales Offices

Alabama, Birmingham
Arkansas, Little Rock
California, Los Angeles†
California, Oakland*
California, San Francisco§
Colorado, Denver†

Connecticut, Hartford
Connecticut, New Haven
Connecticut, Waterbury*
District of Columbia, Washington
Florida, Jacksonville
Florida, Tampa*
Georgia, Atlanta§†
Georgia, Savannah
Illinois, Chicago§†

Indiana, Fort Wayne
Indiana, Indianapolis
Iowa, Des Moines
Kentucky, Louisville

Louisiana, New Orleans†
Maryland, Baltimore
Massachusetts, Boston†
Massachusetts, Springfield
Massachusetts, Worcester
Michigan, Detroit
Michigan, Grand Rapids
Minnesota, Duluth

Minnesota, Minneapolis†
Minnesota, St. Paul*
Missouri, Joplin†
Missouri, Kansas City†
Missouri, St. Louis†
Montana, Butte†
Nebraska, Omaha
New Jersey, Newark*

* No G-E office.

OFFICES AND DISTRIBUTORS IN THE UNITED STATES

G-E Distributing Jobber

Matthews Elec. Supply Co.
Pacific States Electric Co.
Pacific States Electric Co.
Pacific States Electric Co.
The Hendrie & Bolthoff Mfg. & Sup. Co.

New England Eng. Co.
National Elec'l Supply Co.
Florida Elec. Supply Co.
Florida Elec. Supply Co.
Carter Electric Company
Carter Electric Company
Central Electric Company
Commonwealth-Edison Co.

Indianapolis Elec. Supply Co.
Mid-West Electric Co.
Belknap Hardware & Mfg. Co., Inc.

Woodward, Wight & Co., Ltd.
Southern Electric Co.
Pettingell-Andrews Co.

Frank C. Teal Company.

Northwestern Electric Equipment Co.

Peerless Electrical Co.
Northwestern Elec. Equip. Co.

The B-R Electric Co.

Wesco Supply Company

Butte Electrical Supply Co.

Mid-West Electric Co.

Tri-City Electric Co., Inc.

* Southwest General Electric Company.

G-E Sales Offices

New York, Albany*
New York, Buffalo
New York, Elmira
New York City§†

New York, Niagara Falls
New York, Rochester

New York, Schenectady

New York, Syracuse

North Carolina, Charlotte

Ohio, Cincinnati†

Ohio, Cleveland

Ohio, Columbus

Ohio, Dayton

Ohio, Toledo

Ohio, Youngstown

Oklahoma, Oklahoma City*†

Oregon, Portland†

Pennsylvania, Erie

Penn., Philadelphia§†

Pennsylvania, Pittsburgh†

Rhode Island, Providence

South Carolina, Columbia*

Tennessee, Chattanooga

Tennessee, Knoxville

Tennessee, Memphis

Tennessee, Nashville

Texas, Dallas†*

Texas, El Paso†*

Texas, Houston†*

Utah, Salt Lake City†

Virginia, Richmond

Washington, Seattle†

Washington, Spokane

West Virginia, Charleston

Wisconsin, Milwaukee

For Hawaiian business, Catton, Neill & Co., Ltd., Honolulu.

† Warehouse.

G-E Distributing Jobber

Havens Electric Co., Inc.
Robertson-Cataract Elec. Co.

E. B. Latham & Company
Royal Eastern Elec'l Sup. Co.

Sibley-Pitman Elec. Corp.

Wheeler-Green Elec'l Sup. Co.

Mohawk Elec'l Sup. Co.

The F. D. Lawrence Elec. Co.

Republic Electric Co.

The Erner & Hopkins Co.

The Wm. Hall Electric Co.

W. G. Nagel Electric Co.

Pacific States Electric Co.

Philadelphia Elec. Co. Supply Dept.

Union Electric Company.

Perry-Mann Elec. Co., Inc.

James Supply Company.

Electric Supply Company.

Capital Electric Company.

Pacific States Electric Co.

§ Service Shop.

For Business Outside of the United States INTERNATIONAL GENERAL ELECTRIC COMPANY, INC.

General Sales Offices: 120 Broadway, New York, Schenectady, N. Y., U. S. A., and 83 Cannon St., E. C.—4, London, England.

Foreign Representatives

Argentina: Cia General Electric Sudamericana, Inc., Buenos Aires.
Australia: Australian General Electric Company, Sydney and Melbourne.
Bolivia: International Machinery Co., La Paz and Oruro.
Brazil: Companhia General Electric do Brazil, Rio de Janeiro and Sao Paulo.
Chile: International Machinery Co., Santiago, Valparaiso and Antofagasta.
China: International General Electric Co., Inc.; Anderson, Meyer & Co., Ltd., Shanghai.
Colombia: Wesselhoeft & Poor, Barranquilla and Bogota.
Cuba: General Electric Company of Cuba, Havana.
Dutch E. Indies: International Gen'l Electric Co., Inc., Soerabaya, Java.
India: International General Electric Company, Inc., Calcutta.
Japan: Shibaura Engineering Works, Tokyo; Tokyo Elec. Co., Ltd., Kawasaki.
Mexico: Mexican General Electric Company, Mexico City and Guadalajara.

New Zealand: The National Electrical and Engineering Co., Ltd., Wellington, Christchurch, Dunedin and Auckland.
Peru: W. R. Grace & Company, Lima.
Philippine Islands: Pacific Commercial Company, Manila.
South Africa: South African General Electric Co., Johannesburg and Capetown.
Uruguay: Cia General Electric Sudamericana, Inc., Montevideo.
Venezuela: Wesselhoeft & Poor, Caracas.

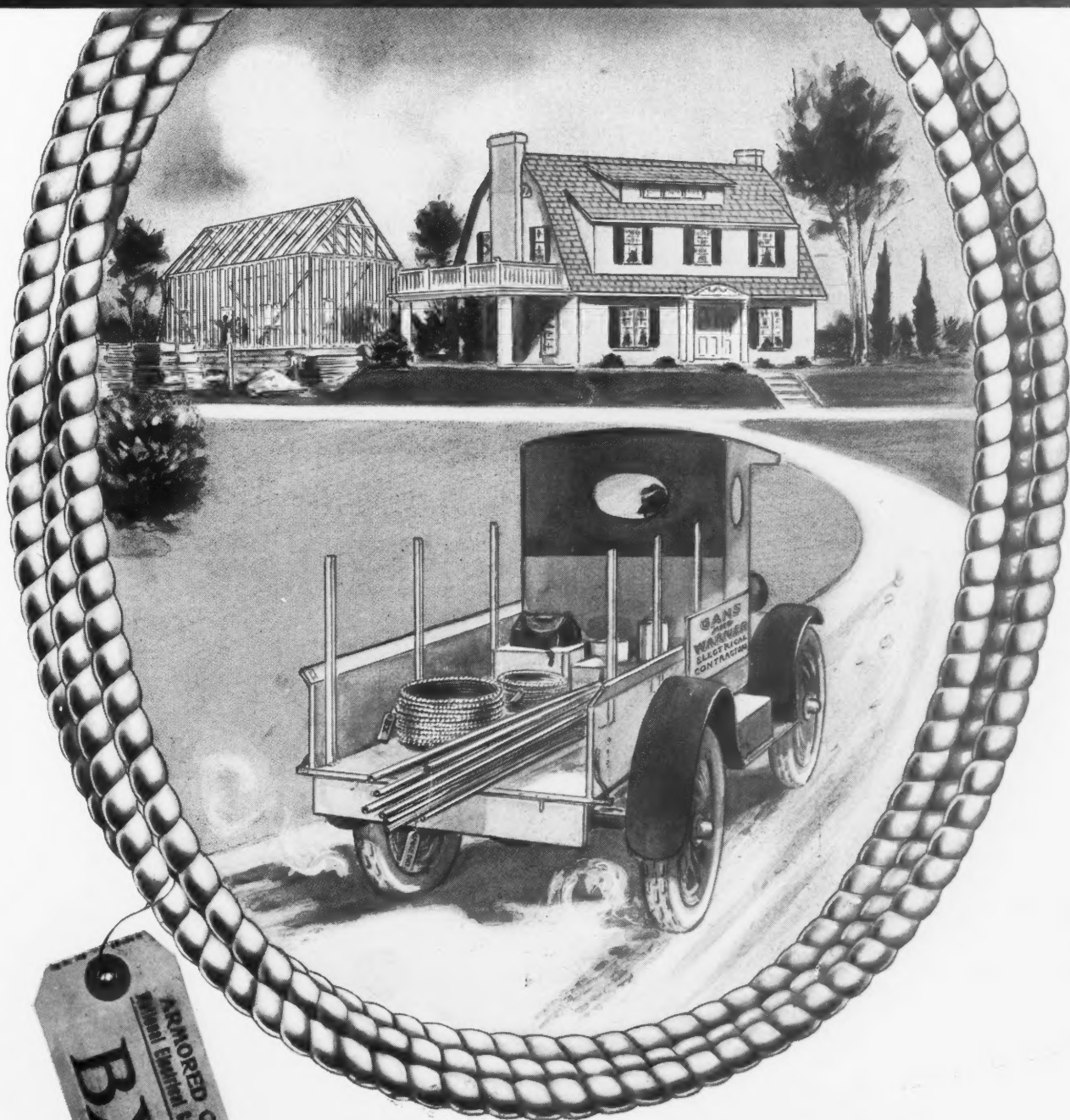
For business in Great Britain address British Thomson Houston Co., Ltd., Rugby, Eng.

For business in Canada address Canadian General Electric Co., Ltd., Toronto, Ont.



General Electric Company

"BX"-Cable. The Steel Armored Conductor preferred by Wiremen above all others because it pulls in easily, has just the right degree of flexibility to handle well and doesn't readily kink, stretch or rust



"BX" Cable, originated by the Sprague Electric Works, and registered in U. S. Pat. Off., is chosen by the most prominent Electrical Contractors, Electrical Engineers and Architects because it insures the safest and best form of wiring old or new buildings.

Distributors in all large cities.



Main Offices
527 W. 34th St. New York

SPRAGUE ELECTRIC WORKS
Of General Electric Company
PIONEERS OF THE INDUSTRY



Branch Offices
in Principal Cities

Saving Time with Duplex Lighting

That time saved is money earned has more meaning today than ever before.

And Duplexalite is one of the greatest little time savers for the electrical dealer you ever saw.

It comes packed complete in a carton all wired and ready to install so that no time is lost in the shop getting parts of the unit together.

Duplexalite under normal conditions can be installed in less time than any other unit that you have ever handled.

When you think of this in connection with the demand of Duplexalites in homes, stores, offices, hotels, drafting rooms and public buildings, you will realize that you can't afford to pass up Duplex Lighting.

DUPLEX LIGHTING WORKS

of General Electric Company

6 West 48th Street

New York City

Duplexalite
"The light to live with"

is inside



**Better Protection—
Greater Convenience—
Improved Service**

AFTER exhaustive tests at the Government Box Testing Laboratory, the Edison Lamp Works have decided upon what is believed to be a greatly improved method of packing Edison MAZDA Lamps.

Every Edison MAZDA Lamp is now packed separately in a distinctive "His Only Rival" container. Sizes up to 60 watts, individually wrapped, are packed in inner boxes, and these in turn placed in the outer case or standard package.

This method permits of a flexibility of assortments, since any desired combination of four different sizes or types can be supplied in one standard package. This enables every dealer to meet at all times, in a quick, convenient, safe way—and from a minimum stock—the variety of demands he has from his customers for various types of lamps.

The elimination of excelsior does away with dirt and fire hazard, and on account of the greater uniformity of packing provides better protection. In every stage of handling—in transit, in stock, in repacking, in retail sales and in the hands of the consumer—the new packing means better protection, greater convenience and improved service.

A booklet fully describing the new packing and its advantages will be sent to all Edison MAZDA Lamp Agents and central station customers.



47D-88



EDISON MAZDA

EDISON LAMP WORKS OF GENERAL ELECTRIC COMPANY

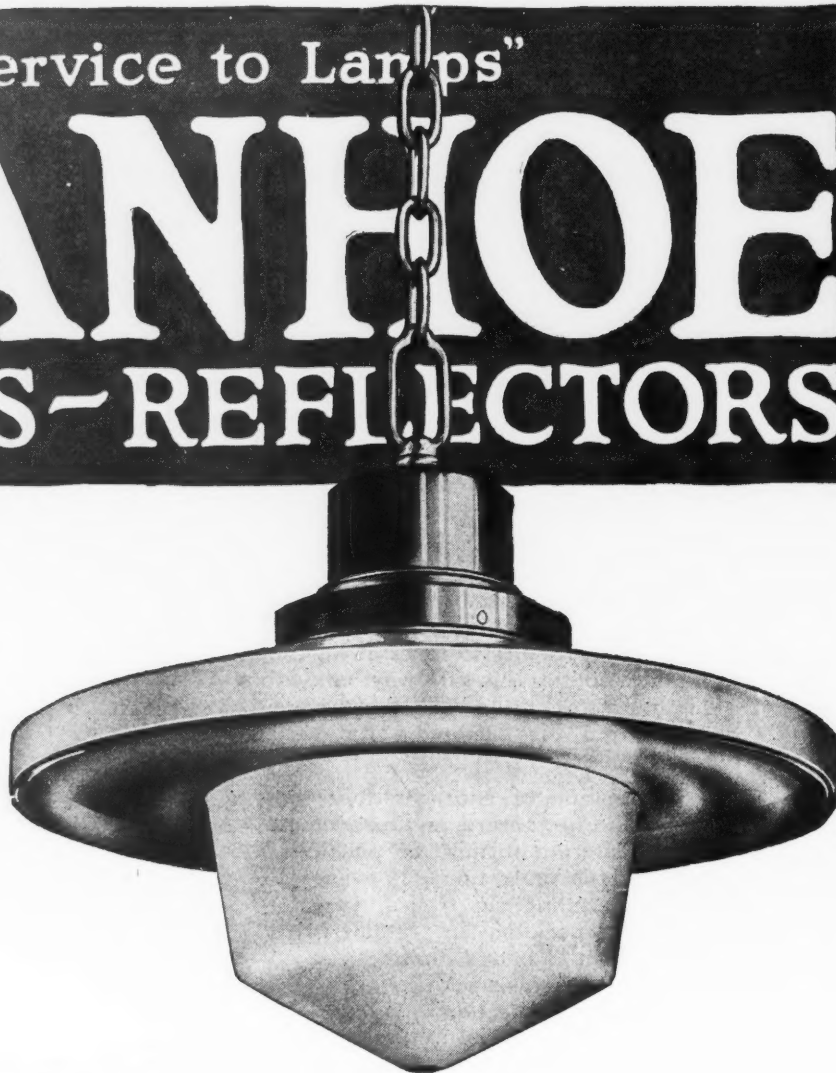
"Service to Lamps"

IVANHOE

SHADES-REFLECTORS

For stores, offices, schools, churches, theaters, assembly halls, display rooms and the like.

Complete units including glass and suspension are packed in individual cartons; easy to ship, store and handle.



The Ace

This new IVANHOE unit is made of *one piece of glass*. In this it differs from all other units. The result is to close practically all the openings through which dust and dirt might sift in!

It is the nearest thing possible to a "self-cleaning" globe.

The ACE is unique in other respects also. The upper surface, the outer edge, and the bowl underneath are covered with a white enamel which is thoroughly fused on the glass. The enamel is very dense on the top surface and less dense on the lower portion of the unit,

projecting most of the light downward. This method of enameling together with the carefully worked out contour, results in:

- (1) The complete elimination of Glare;
- (2) The complete elimination of cross reflections;
- (3) Extremely small light absorption;
- (4) Thorough diffusion of light into the working plane.

General Electric lighting engineers have carefully designed and thoroughly tested this unit. The data, which will be supplied you upon application, are both authentic and conservative. Shall we send the data? May we advise with you on all your lighting requirements?

IVANHOE REGENT WORKS of General Electric Co.
Cleveland, Ohio

"Ivanhoe" Steel Reflectors, Lighting Glassware, Anderson Self-Adjusting Arms and Illuminating Service

Bring the Light to the Spot with the ANDERSON ARM

[(Sold only by IVANHOE-REGENT WORKS)]

In one straight motion you carry the light from wherever it is to wherever you want it. The universal joints accommodate themselves to any position. The lamp "stays put" without adjustment. You can light the top side, bottom side or inside of most anything—instantly! You don't adjust anything or bother with thumbscrews. You aim it—then let go—that's all. And while this is the most con-

venient and the most efficient method of local lighting, it has this other feature—that it protects the lamp, making possible the use of MAZDA lamps in many places where only carbon lamps were used before. Anderson Arms (sold only by IVANHOE-REGENT WORKS) are made in a great variety of styles to suit any location. Send for catalog.

IVANHOE-REGENT WORKS of General Electric Company
Cleveland, Ohio

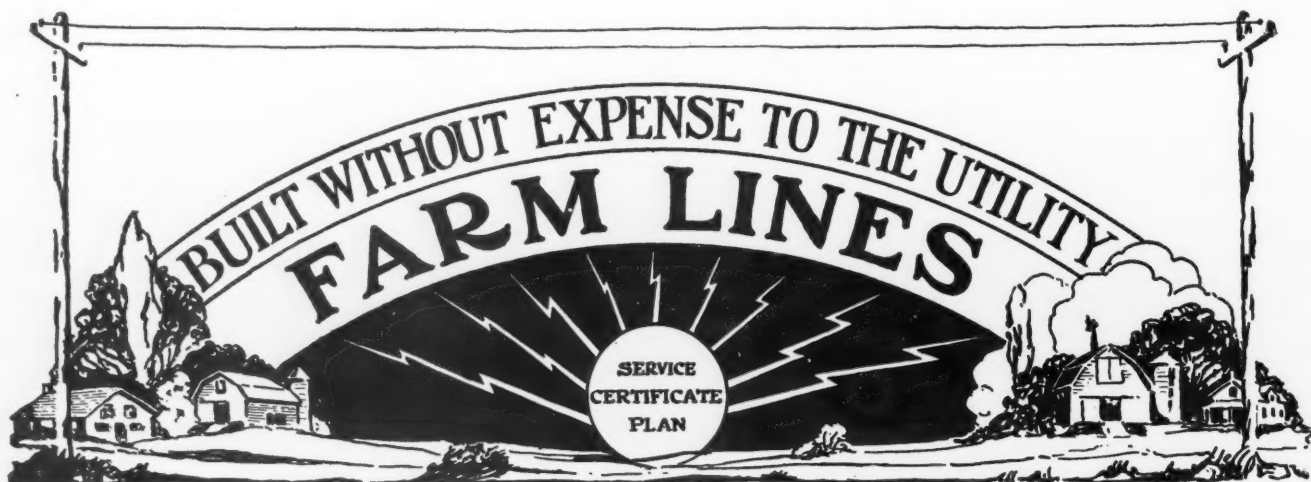
"Ivanhoe" Steel Reflectors, Lighting Glassware, Anderson Self-Adjusting Arms and Illuminating Service.

"Service to Lamps"
IVANHOE
SHADES-REFLECTORS



Local Lighting, with or without the Anderson Arm, is not recommended in place of general overhead illumination. It is never a substitute for, but should be used only as a supplement to, general lighting. Anderson Arms are sold exclusively by

Ivanhoe Regent Works
of General Electric Co.



But Built at a Profit to Jobbers, Dealers and Contractors

THE boy who sits on the top of the world today is the Farmer. He is there. He can go to his dairy for his milk and the kids can gather the eggs. His potatoes are in his bins. His salt pork is in brine and his hams are in the smoke house. He can carry his own wheat to the mill.

HE is a going concern even if the whole world goes on a strike. The worst walkout is that of all the cattle from the pasture into the corn. The worst lockout is that of losing the key. Young man, stick on the farm... The above are quotations from an editorial in The Chicago Tribune and illustrate present conditions.

THE young men *are* sticking on the farm, *are* buying phonographs, automobiles, machinery, telephones and *are* ready to put in electric power and light. But *are you*, Mr. Dealer, Jobber, Contractor, spending your time on hard city prospects and forgetting the good farm prospects?

THERE is a new Farm Power and Lighting Equipment on the market, a new lot of customers waiting and a complete selling plan ready by which you can sell the farmer equipment, supplies, washing machines, lamps, motors, and everything electrical.

COUNT up the farmers in your territory and then visualize the yearly sales if only *part* of them put in electric service. With this new equipment and the sales plan, your sales to each farmer will approximate \$1000.00 and he also pays for the transmission lines.

THE Service Certificate Plan in connection with this new Farm Power and Lighting Equipment will permit you to co-operate with Central Stations, will put many new customers on your books, will make the Farmers your salesmen without cost. They are boosters. They tell their neighbors and you need their co-operation.

Write for Bulletin No. 35 Today

Delta-Star Electric Company

2435 Fulton St., Chicago, Ill.

New York, N. Y., 100 Broadway
Boston, Mass., 76 Pearl St.
Rochester, N. Y., E. & B. Building
Syracuse, N. Y., City Bank Bldg.

DISTRICT OFFICES
Salt Lake, Utah, Walker Bank Bldg.
Toronto, Ont., 67 Yonge St.

Seattle, Wash., Hoge Building
Philadelphia, Pa., 1231 Arch St.
Denver, Colo., 1633 Tremont St.
Pittsburgh, Pa., Union Arcade

DELTA-STAR HIGH TENSION EQUIPMENT

UNIT-TYPE INTERCHANGEABLE PARTS

DEXTER "DOUBLE TUB"

**Sells Quicker—Stays Sold Every Time
Pays a Real Profit to the Dealer**

This machine has complete washing gearing in both tubs. It washes, rinses, wrings by power—all at the same time. Dexter Double Tub does big family washings in less than half the time required by single tub machines—gets the clothes cleaner without boiling or hand rubbing.

**Improved
Swinging
Wringer
With
Safety
Release**



You can double your washing machine sales—and your washing machine profits with this machine. Dexter Double Tub will help you cash in on the electric washing machine business while the demand is so strong.

**Write today for
Catalog and
Exclusive
Agency
Proposition**

THE DEXTER COMPANY.

FAIRFIELD IOWA

Warehouses at Albany, Toledo and Peoria

Washing Machine Users

Strong Selling Points That Sell—



Are Buying THOR Ironers

Wide Opening Shoe

The shoe drops back fully 4 inches, making cleaning and polishing an easy matter.



Perfect Control

The THOR is always under perfect control, and is designed to make it easy for any woman to operate.

ELECTRIC IRONING MACHINE

Mr. Dealer do you know what an easy thing it is to sell a THOR Ironer to the woman who uses an electric washer? Her experience with her washer has proven to her that it's cheaper and quicker and better to let electricity do her work, and a successful demonstration with a THOR Ironer goes a long way towards making a sale.

Dealers selling THOR Ironers are making quick turnovers, and are building up a reputation for selling reliable merchandise.

Write today for the dealer proposition with THOR Ironers.

Immediate Shipments

Dealer Helps

Hurley Machine Company

28 East Jackson Blvd., Chicago, Ill.

NEW YORK

TORONTO

The "PHELPS" Franchise

The "PHELPS" does not limit your light plant sales to the farm alone. It can be sold to more than twenty classes of buyers. Its a big man's business, done in a big, broad way.

The "PHELPS" 1500 watt generator and 4000 watt battery is power enough to furnish electric service to whole neighborhoods.

Schools, churches, libraries, public buildings, halls, stores, country estates, summer cottages, hotels, circuses, chautauquas, fairs, camps, automobile and country clubs, inns, summer resorts. *All these are prospects.*

The "PHELPS" 3½ hp. belt pulley and 1½ kw. generator give power (both belt and electric) to garages, small factories, railway stations, boats, moving picture theatres—with plenty reserve for lights.

PHELPS Farm POWER Farm LIGHT

installations do not mean the profit from the plant alone. Double electric capacity with 3½ hp. belt pulley means the selling of TWICE the usual number of accessories. Line shafts, pulleys, belts, motors, wiring, fixtures, globes,

pumps, fresh water supply systems, belt and electric driven chore machinery—all these (with their individual profits) are sold by the "PHELPS" dealers.

Hundreds of "PHELPS" dealers own and control the light plant business in their territories. The "PHELPS" does not meet competition—its power and simplicity dominate—absolutely.

INCREASED PRODUCTION

Permits Our OPENING NEW TERRITORIES

Some business man in your community is going to join us in dominating the light plant field. Are you that man? The "PHELPS" powerful advertising and factory sales co-operation will

back you up. The "PHELPS" price makes this franchise a money-making opportunity. WRITE TODAY—while some territories are still open.

PHELPS Light and Power Co.
ROCK ISLAND, ILLINOIS



PHELPS Farm POWER Farm LIGHT

AutoMatic Washer

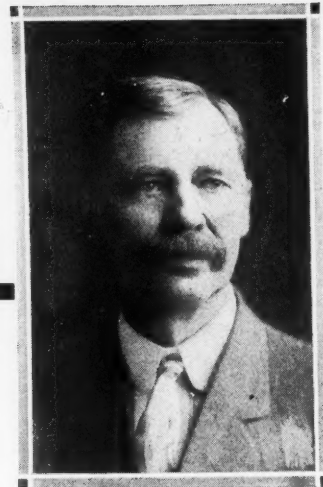
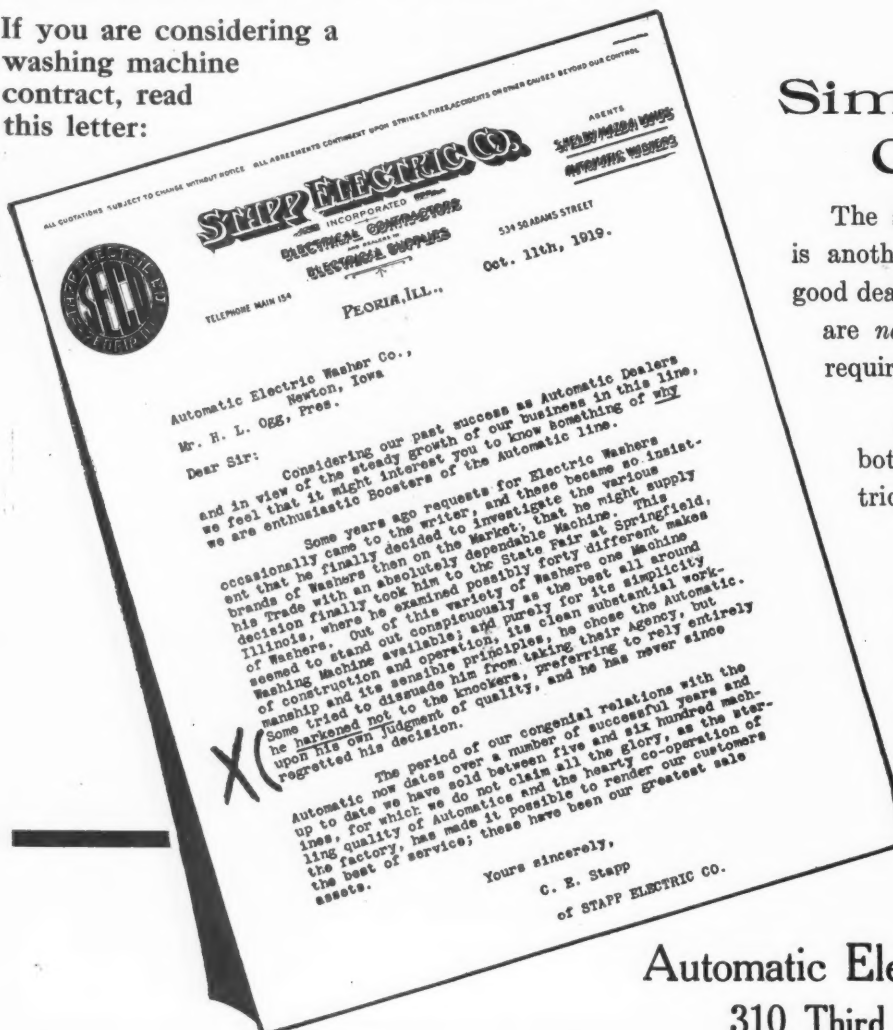
Peoria Dealer Tells Why He Chose the Automatic and Why He Sold More Than 500 Automatics

"It might interest you to know something of why we are enthusiastic boosters of the Automatic line," writes C. E. Stapp of the Stapp Electric Co., Peoria, Ill., who sums up his experience with the Automatic by saying:

"We have sold between 500 and 600 Machines, for which we do not claim all the glory, as the sterling quality of Automatics and the hearty co-operation of the factory has made it possible to render our customers the best of service. These have been our greatest sale assets."

Thousands of Automatic dealers will tell you the Automatic is a good machine to sell because it is a good machine to own.

If you are considering a washing machine contract, read this letter:



C. E. STAPP

Simplicity of Construction

The sturdy simplicity of the Automatic is another reason for its popularity with good dealers everywhere. Automatic profits are *net*, because a minimum of service is required on these machines.

A full line, including sensible sizes in both Dolly and Cylinder types, for electric or belt power.

If interested in a Real Co-operative Washing Machine Proposition on a Machine that will make good with your customers and increase your business and profit year after year, write for complete details.

Automatic Electric Washer Company
310 Third St., Newton, Iowa

AutoMatic Washer



These Books Help Get Business

We furnish you a number of copies of two valuable household books on cleaning, to give to your customers. They make good bait to secure prospects.

- 1** Most simple, fewest operating parts. Nothing complicated to get out of order.
- 2** Washes and wrings separately or both at same time.
- 3** Wringer can't sag, having an unusually substantial mounting.
- 4** Two levers control everything, responding instantly to touch.
- 5** Washes a tubful in 7 minutes—beautifully clean, without injury to the most delicate fabric.
- 6** Wringers are 3-position, swinging reversible with the best rolls made.
- 7** Instant release on wringer—absolutely preventing any accident.
- 8** Motor fully enclosed, protected from water and has plenty of surplus power.

Write for full information as to how we can help you build up your washing machine business.

Automatic Electric Washer Co., 310 Third St., Newton, Iowa

The Air-Way Electric Cleaner



Ready for
Immediate Delivery!

See What the Air-Way Handle Does for Her!

Would milady like to quickly remove the dirt from all those hard exasperating places?

From the corners, under radiators—from portieres, walls, window frames, mouldings, pictures, mattresses and tufted furniture?

Then she simply picks up her Air-Way and uses the handle just like the illustration. The Air-Way is so light that a child can carry and operate it.

A Real Sales Opportunity No Other Cleaner Like It!

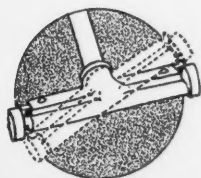
On rugs, carpets and floors she uses the Air-Way just like any other cleaner—but on the hard out-of-the-ordinary places the handle does the whole job for her.

No waiting to put on cumbersome attachments—not a bit of bother. She just turns the indicator arrow toward the handle and in a few minutes the Air-Way has cleaned the house.

There is no other cleaner like the Air-Way—none which makes such an instantaneous appeal to the housewife. Distributors and dealers who handle the Air-Way get into big profits quickly because they can make a demonstration which immediately marks the Air-Way as delightfully different from every other cleaner—and decides the sale on the spot.

Write or Wire for Details of Sales Plan at Once

THE AIR-WAY COMPANY, TOLEDO, OHIO



The Air-Way universal joint is a veritable "Human Wrist." Gets under couches, tables, chairs, etc.



The only cleaner with the sanitary Paper Bag!



Suction easily changed from one end to the other by patented Air-Way Indicator.



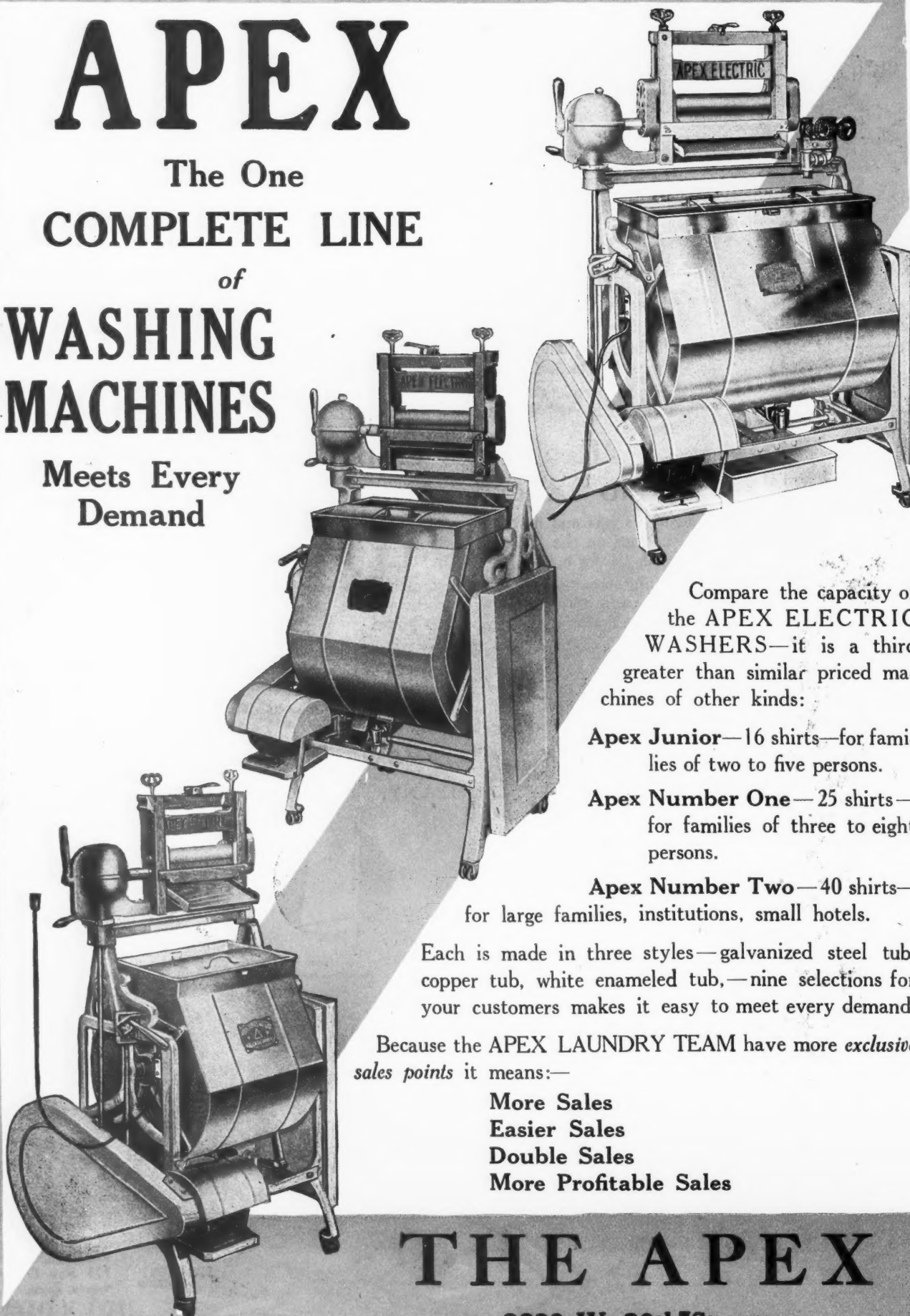
Exclusive Distributors for Greater New York: Air-Way Vacuum Cleaner Co., 295 Fifth Ave.

Export Agents: American Overseas Engineering Co., Inc., 44 Whitehall Street, N. Y. 75 Curtain Road, London, E.C.2. 173 Rue De Provence, Paris.

APEX

The One
COMPLETE LINE
of
WASHING
MACHINES

Meets Every
Demand



Compare the capacity of the APEX ELECTRIC WASHERS—it is a third greater than similar priced machines of other kinds:

Apex Junior—16 shirts—for families of two to five persons.

Apex Number One—25 shirts—for families of three to eight persons.

Apex Number Two—40 shirts—for large families, institutions, small hotels.

Each is made in three styles—galvanized steel tub, copper tub, white enameled tub,—nine selections for your customers makes it easy to meet every demand.

Because the APEX LAUNDRY TEAM have more *exclusive sales points* it means:—

More Sales
Easier Sales
Double Sales
More Profitable Sales

THE APEX

3239 W. 30th Street



APEX

THE ONE COMPLETE LINE
of
IRONING MACHINES

Meets Every
Demand

There are three types of heat that are standard in the APEX ELECTRIC IRONING MACHINES—gas, gasoline, electric. All have electric motor drive. White enamel finish. Double control, (hand or foot) and wide swinging shoe, and free running roll makes the APEX the most convenient Ironer.

AGENCIES OPEN

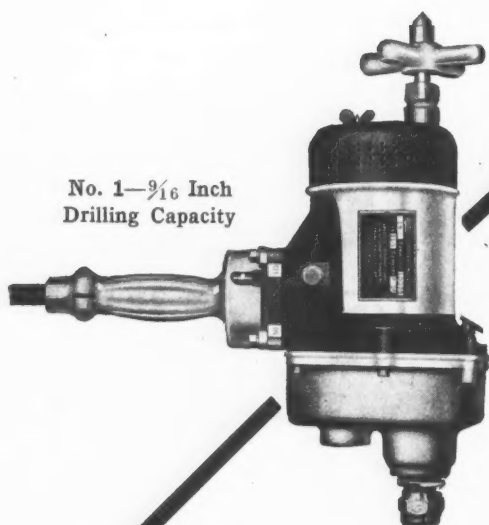
If you want to establish a strong, self enlarging, self repeating business that should pay you an excellent income, then get the sales agency for the APEX LAUNDRY TEAM. Many localities still open.

National advertising, cooperation with agents—sales plans and helps that move the goods.

Ask for details and terms

APPLIANCE CO.

CHICAGO, ILLINOIS



No. 1— $\frac{1}{16}$ Inch
Drilling Capacity

A Profitable Line For Every Agent

A field which has scarcely been touched by the Electrical Agent is the sale of portable electric tools. There is a ready sale for such tools, and there is a handsome profit to be made selling the Thor Electric Portable Drills and Grinders.

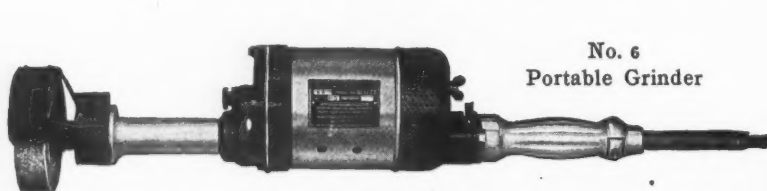
Thor ELECTRIC PORTABLE DRILLS AND GRINDERS

Your prospects for their sale are garages and repair shops. There is such a strong labor and time-saving appeal that the sale is readily and permanently made.

Thor Drills and Grinders are built with Universal Motors (licensed under Burke patent), for either A C or D C. They will operate from any light socket. The Jacobs chuck is used as regular equipment. They are made in five sizes, with drilling capacities ranging from $\frac{1}{4}$ inch to $\frac{1}{16}$ inch.

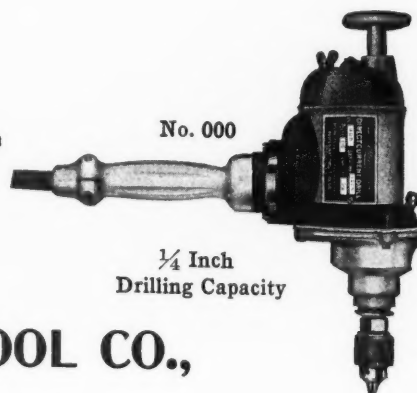
The Thor Portable Grinder is a light weight, efficient tool that can be used for grinding, polishing, buffing, etc.

A large investment in stock is unnecessary, as we can make delivery on short notice from any of our branches.



No. 6
Portable Grinder

Write today and get the complete details on our liberal proposition for agents. ACT NOW!



No. 000
 $\frac{1}{4}$ Inch
Drilling Capacity

INDEPENDENT PNEUMATIC TOOL CO.,

General Offices

600 West Jackson Blvd., Chicago, Ill.

Branches: New York City Pittsburgh, Pa. Detroit, Mich. Birmingham, Ala.
San Francisco, Cal. Toronto, Ont. Montreal, Que.

A B C Washing Machines
will be advertised in double page
spreads in The Saturday Evening
Post—starting with the issue of
January 17th. [See Advertisement next page]

No comment is necessary as to the “pulling-power” of The Saturday Evening Post. The A B C National Magazine Campaign will not, however, be confined to this one medium. A B C Advertisements will appear every month in The Ladies Home Journal, Woman’s Home Companion, Good Housekeeping, Christian Herald, and other leading National Magazines.

Total Circulation—35 Million Readers

This represents one-half of the native-white population of the United States and means that one-half of the possible washing-machine prospects in each locality will read A B C National Magazine “ads” regularly.



Foreign Sales Dept.
49 Broadway, New York

PEORIA, ILLINOIS

A-B-C

"Sometime I'm going to have an electric washer"—that's the decision of every American housewife who needs this labor-saver to lighten the home work. And she is making careful comparisons in order to select the machine that will fulfill all her expectations. What she seeks is results—year-after-year satisfaction—not mere possession.

This attitude of discriminating women is responsible for the tremendous popularity of the A-B-C. Several thousand of these machines—more than we have been able to make—are chosen every month, indicating that women find the qualities most desired in the A-B-C.

You may have discovered that many other washers resemble the A-B-C in appearance and *will wash clothes*. But you will also find a wide difference in the degree of efficiency by which this result is accomplished. There are several advantages in the A-B-C that cannot be had in any other washer. A careful analysis of the machine, its principle of operation, the experience of its makers and the endorsement of users invariably dictate the purchase of an A-B-C.

Demand for A-B-C Electric Washers has always greatly exceeded our ability to supply. It has made necessary the erection of two enormous new factories during 1919. Our dealers say, however, that most people are willing to wait a reasonable time for an A-B-C rather than accept a less desirable washer that can be had immediately. The A-B-C is well worth waiting for. It is an investment from which you will benefit for many years to come.

A Complete Line to Choose From

The A-B-C is the most complete line of electric and power washers for city, suburban and farm use. There's a machine for every purse, though quality is never sacrificed to price. Each type or model is pre-eminent in its price class.

A-B-C washers are sold only by the best dealers—merchants of vision—who realize that their profits depend upon your complete and permanent satisfaction.



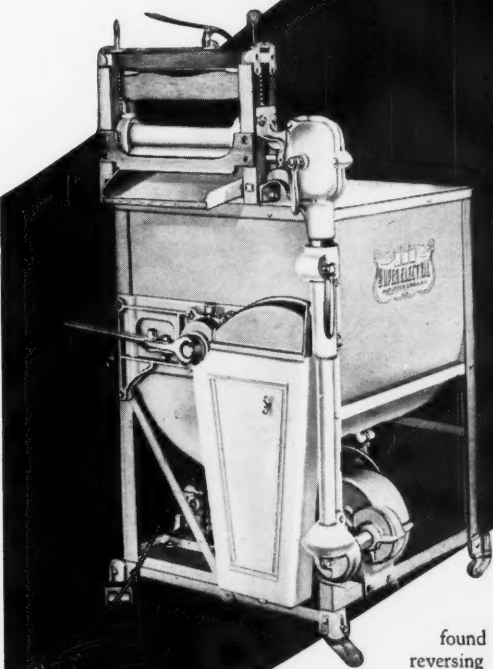
A-B-C Alco Electric Dolly Type Washing Machine

For more than 10 years this has been the leader of the dolly-type or wood-tub washers. Though moderately priced, it washes quickly and thoroughly. There is no mechanism whatever on the tub or lid to soil or tear clothes or injure the operator. Comparison with other washers of this type will show its superiorities.

The double-tub Alco Electric is especially adapted for large families, farms, small hotels, and resorts. It washes two tubs at once, or only one, as desired.

ELECTRIC WASHING MACHINES

Every woman, when buying a washing machine, should consider it an investment from which she will receive dividends, not only in money actually saved each week, but in genuine satisfaction from efficient service.



A-B-C Washers for Farm and Suburban Homes

For homes that do not have central station electric service, but are equipped with individual lighting plants, A-B-C dealers can supply all models with 32-volt motors.

A-B-C Washers are also furnished without motors, but with special pulley attachment, to be driven direct from gasoline engine, overhead line-shaft, or lighting plant power stand. A-B-C Washing Machines are available for use everywhere—city, suburb or farm.

A-B-C Super Electric America's Leading Washing Machine

The fullest perfection attained in washing machine design and construction is combined to the greatest degree in the A-B-C Super-Electric. It has the important features of other makes and several exclusively its own.

The washing principle is the only one that has been found practical by commercial laundries—the revolving-reversing cylinder. And, even among cylinder-type machines, the A-B-C's operating principle is unique in the reversal of the cylinder after each revolution. This gives maximum agitation of clothes and suds, and prevents wadding.

The constant lifting and dropping of the wet clothes—forcing hot suds through them 44 times each minute—cleanses quickly and thoroughly. There is not the slightest wear or injury to the clothes—no pounding or imitation of scrub-board methods.

All moving parts are encased, preventing injury to operator, servants, children, or pets. The wringer swings all around and locks in any position; the machine runs silently; it costs only one-third as much to operate as an ordinary electric iron.

The A-B-C is easier to understand and operate than a sewing machine. Everything is as simple as a woman could wish. Needs little attention—always in running order.

The A-B-C Super-Electric has been tested and approved by Good Housekeeping Institute, and has the unqualified endorsement of its users everywhere

ALTORFER BROS. COMPANY PEORIA, ILLINOIS

Leading Manufacturers of Electric and Power Washing Machines in America

Send Now for This Book

"The A-B-C of Wash Day" contains new ideas for saving time and work by electric clothes washing. It is full of suggestions you cannot find elsewhere. Probably the best known authority on this subject—Miss Mildred Maddocks, Director of Good Housekeeping Institute—has written especially for this book instructions on "How to Machine Wash."



When mailing you the book we will also send you the name of our nearest dealer. Write Now.

OUR FOURTH factory unit, announced in the last issue of Electrical Merchandising, will be in operation by the time this issue reaches its readers. This gives us a factory floor space of approximately 200,000 square feet, devoted exclusively to the production of electric and power washing machines, on a scale, we believe, that has never been previously attempted in this industry.

This increased production will be largely absorbed by the present A B C Distributing Organization—wholesale and retail. Neither jobbers nor dealers have ever been able to secure nearly as many A B C Machines as they are able to sell.

The A B C Agency-Franchise is now available for hundreds of live dealers in electric appliances—

- in cities and towns in which A B C Washing Machines are not properly represented;
- in cities and towns in which A B C Washing Machines are not being sold at all at the present time.

This is the first time we have even been able to extend an invitation to better-class dealers in all sections of the country to join the A B C Sales Organization. You'll find the A B C Agency Franchise a very attractive proposition. In addition to the advantages you'll derive from being able to purchase your cylinder-type and dolly-type machines from one house, under one trade mark, your store will be coupled up with the best-advertised line of washing machines, and therefore the easiest sold.

Write for full information regarding A B C Washing Machines, how they can be obtained, list prices, discounts, local advertising co-operation, etc. We'll send full particulars promptly.



Foreign Sales Dept.
49 Broadway, New York

PEORIA, ILLINOIS

Autoreelite



The 12-foot extension cord and reel are contained in the small, neat, waterproof ball casing attached to the bracket.

This feature is found only in the Autoreelite

No Touring Car for 1920 is complete without an Autoreelite.

An absolute essential piece of equipment for driving at night.

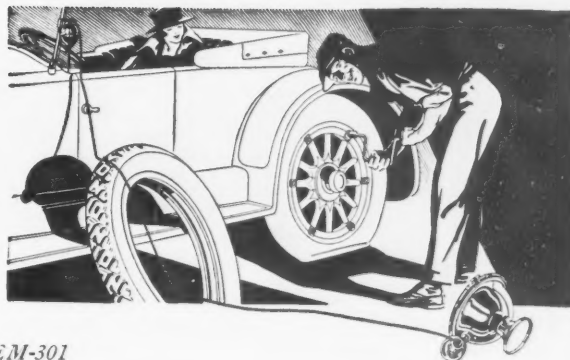
The *only* combined windshield spotlight and trouble-light.

Model B-6, 6-in. diameter, 20 c. p. lamp, with rear view mirror \$9.00

Model B-7, 7-in. diameter, 32 c. p. lamp, with rear view mirror \$10.00

Sport model, all-nickel, with rear view mirror . . . \$15.00

From the best dealers and supply houses.

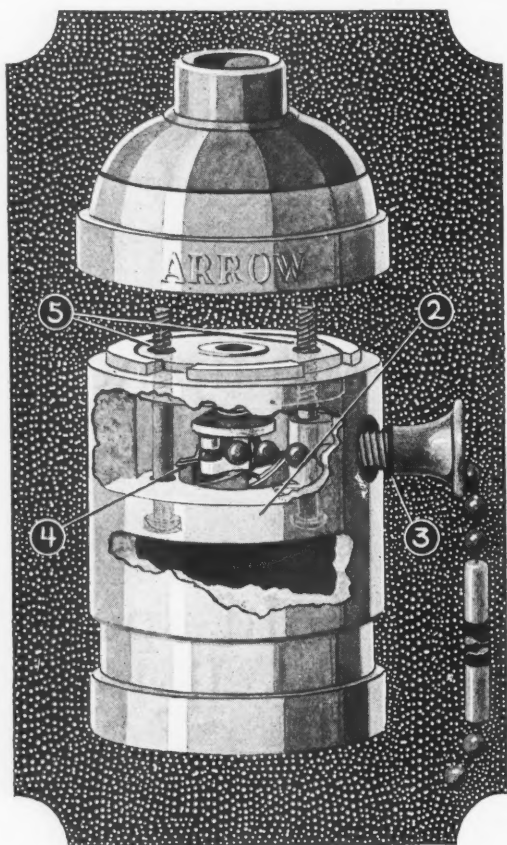


Write for Booklet No. EM-301

See our exhibit at New York Automobile Show.

Anderson Electric Specialty Company
118-124 South Clinton Street Chicago, Illinois

A New Porcelain Pull Socket



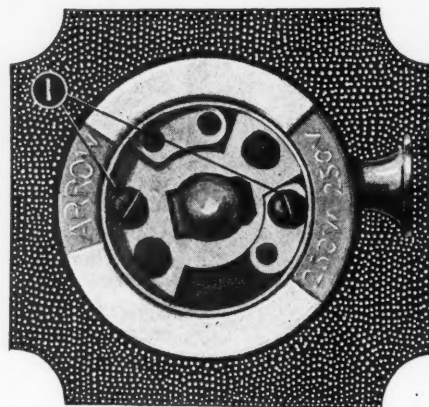
1. Easy to Wire. The screws for attaching to cap or base are on the surface readily accessible with an ordinary screw driver. They are the only screws exposed to view.

2. Interior not loose. Mechanism built upon solid porcelain. **No Rattle.** Practically a one-piece construction. There is no play in the porcelain. It is solid, substantial and always straight.

3. Removable Bell Piece. This allows of extension chain guides and removal of chain guides for refinishing.

4. Standard Pull-Socket Mechanism. Center contact soldered direct to brushes—no chance for flickering lights.

5. Two Screw Fastening, on opposite sides, gives added security and prevents socket from turning when attached.



Changeable with all Standard Arrow Porcelain Socket caps and Bases

The Arrow Electric Company, Hartford, Conn.

Chicago, New York, Boston, San Francisco, Syracuse



The advertisement features a dark, textured background. At the top, a coiled power cord with a standard Edison-style bulb base is shown. In the center, a circular inset photograph depicts a woman with dark hair, smiling and holding a rectangular heating pad against her face. Above this photo is a small rectangular label that reads: "SIMPLEX ELECTRIC HEATING CO. CAMBRIDGE, MASS., U.S.A. 75 WATTS 110 VOLT". Below the photo, the text "Oh! Such a Comfort" is written in a script font. The word "SIMPLEX" is prominently displayed in large, bold, serif capital letters. Below it, "ELECTRIC HEATING PAD" is written in a smaller, bold, serif font, followed by "Drives Away Pain" in a script font. To the right of the text, a cylindrical metal component, likely the heating element, is shown with a cord attached. At the bottom, a quote reads: "The Standard by which all Heating Pads are judged." Below this, the company name "SIMPLEX ELECTRIC HEATING CO." is printed in large, bold, serif capital letters. The address "85 Sidney Street, - CAMBRIDGE, MASS." and "15 South Desplaines St., Chicago Ill." are listed at the very bottom.

Oh! Such a Comfort

SIMPLEX
ELECTRIC
HEATING PAD
Drives Away Pain

"The Standard by which all Heating Pads are judged."

SIMPLEX ELECTRIC HEATING CO.
85 Sidney Street, - CAMBRIDGE, MASS.
15 South Desplaines St., Chicago Ill.



Willys Light Opens Extensive New Market For Electrical Goods

As a substantial source of increased business and added profits the possibilities of Willys Light are of vital interest to every electrical man.

By making electric light and power available to millions of farms and country homes, Willys Light opens a tremendous new field for the sale of electrical goods of all kinds.

This field has been out of reach of the electrical man before because of the limitations of central station service. The enormous potential demand

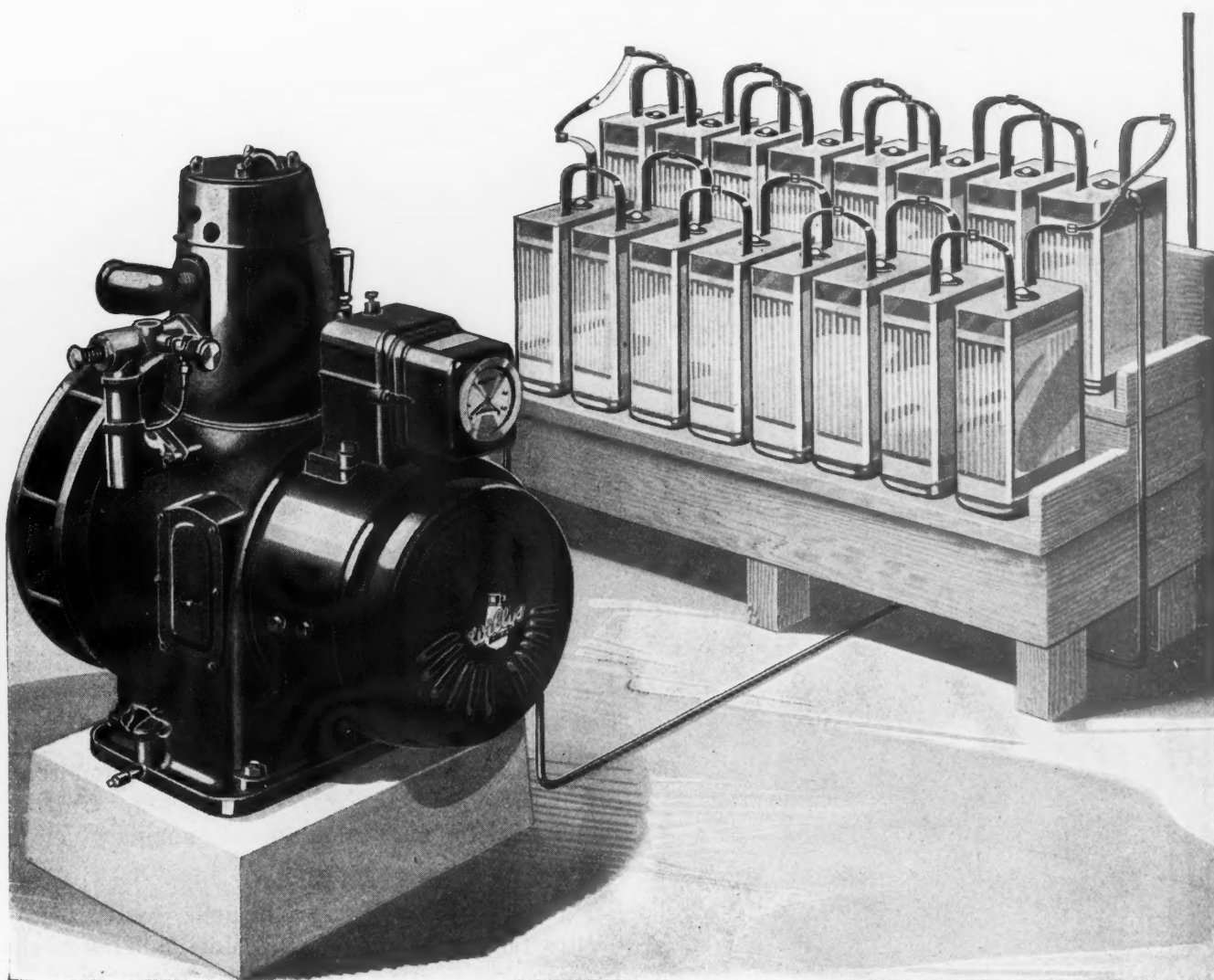
has been there for the advantages of electricity, but it has been dammed up by lack of electrical service.

With the perfecting of Willys Light this barrier to substantial electrical business is removed. Everybody, everywhere can now enjoy the city comforts of complete electric service.

Willys Light opens an opportunity for vastly larger sales of wiring supplies, lamps and fixtures. It also means a materially larger market for time and labor saving electrical accessories of all kinds.

**ELECTRIC AUTO-LITE CORPORATION, WILLYS LIGHT DIVISION
TOLEDO, OHIO, U. S. A.**

District Offices in Spokane, Denver, Minneapolis, St. Louis, Detroit, Syracuse, Philadelphia, Dallas, Atlanta.



Exclusive Features That Establish Willys Light Merit

SUPERIOR in power, in quietness, in simplicity and economy of operation and upkeep, Willys Light has met with marked success by reason of its many *exclusive* advanced features.

It is driven by an air-cooled Willys-Knight sleeve-valve engine, that *improves with use*. It is free from carbon trouble. Carbon *increases* the efficiency of this quiet powerful engine, which is the type used on the finest motor cars.

It burns kerosene at half the cost of gasoline, but choice of fuel is not limited as it performs as efficiently with gasoline, distillate or gas.

It has no troublesome pumps, water tanks or radiator. It has greater battery capacity. It pro-

duces more current with equal amount of fuel. It is self-cranking and stops automatically when the battery is fully charged.

Its mechanism is completely enclosed with no working parts exposed to get out of order or cause danger.

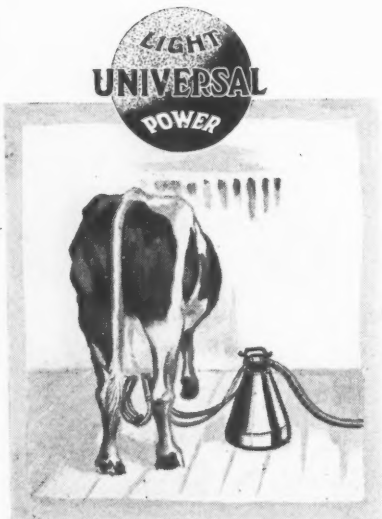
A child can operate Willys Light and it continues to give dependable service day in and day out, the year around, with little care or attention.

Willys Light is built by the world's largest producers of electric starting and lighting systems for motor cars—a fact that guarantees its merit and complete dependability for its purpose. Write Dept. B for descriptive booklet and complete information *today*.

**ELECTRIC AUTO-LITE CORPORATION, WILLYS LIGHT DIVISION
TOLEDO, OHIO, U. S. A.**

District Offices in Spokane, Denver, Minneapolis, St. Louis, Detroit, Syracuse, Philadelphia, Dallas, Atlanta.

UNIVERSAL FARM WILL INEVITABLY ELECTRICAL SALES



EVEN if there was not a very large profit in the sale of *Universal Farm Lighting Plants*—you could well afford to handle them.

At least, Universal dealers everywhere find that the installation of *Universal Farm Lighting Units* leads inevitably to any number of auxiliary electrical equipment sales.

They establish markets where none existed before for electric fans, irons, washing machines, milking machines, pumps, cream separators, churns, vacuum cleaners, sewing machine motors, etc.

Let us present the facts and what a *Universal sales franchise actually means to you* in your territory.

American farms are going to have electric light and power and *electrical dealers are the logical ones* to supply the ever increasing demand.

Don't wait until some one else has the jump on the Farm Lighting business in your section.

It's positively the biggest merchandising proposition today in the United States, next to the Automotive industry.

The Universal is a leader in the electrical farm lighting and power field and is backed by a 20 year pedigree.

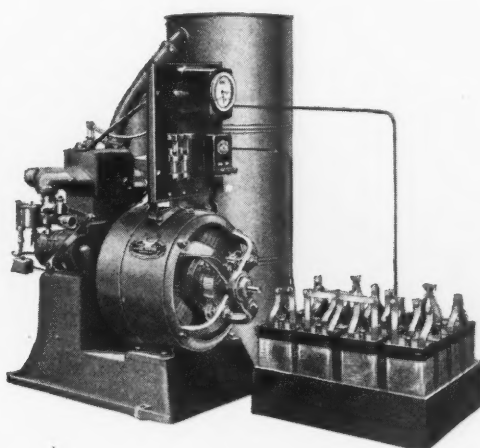
UNIVERSAL PRODUCTS CO.
SANDUSKY OHIO, U.S.A.

LIGHTING PLANTS INCREASE YOUR EQUIPMENT PROFIT

Its unrivalled popularity with dealers and owners is due to its time-tested service record; its simplicity of mechanical construction and moderate cost.

Write us now—for complete specifications of the Universal units, and a special sales proposition covering your territory.

A 75-Light Universal Unit



Not an assembled job, but completely built motor, generator and all component parts, with the exception of batteries, by one of the oldest makers of Unit Lighting Plants on this continent.

Motor automatically stops when battery is charged and light or

power can be taken either direct from the generator or storage batteries.

A 75-Light Unit is a practical size for general farm use, but we make other UNIVERSAL Plants with lighting and power capacity to meet all requirements.

UNIVERSAL PRODUCTS CO.
SANDUSKY OHIO, U.S.A.

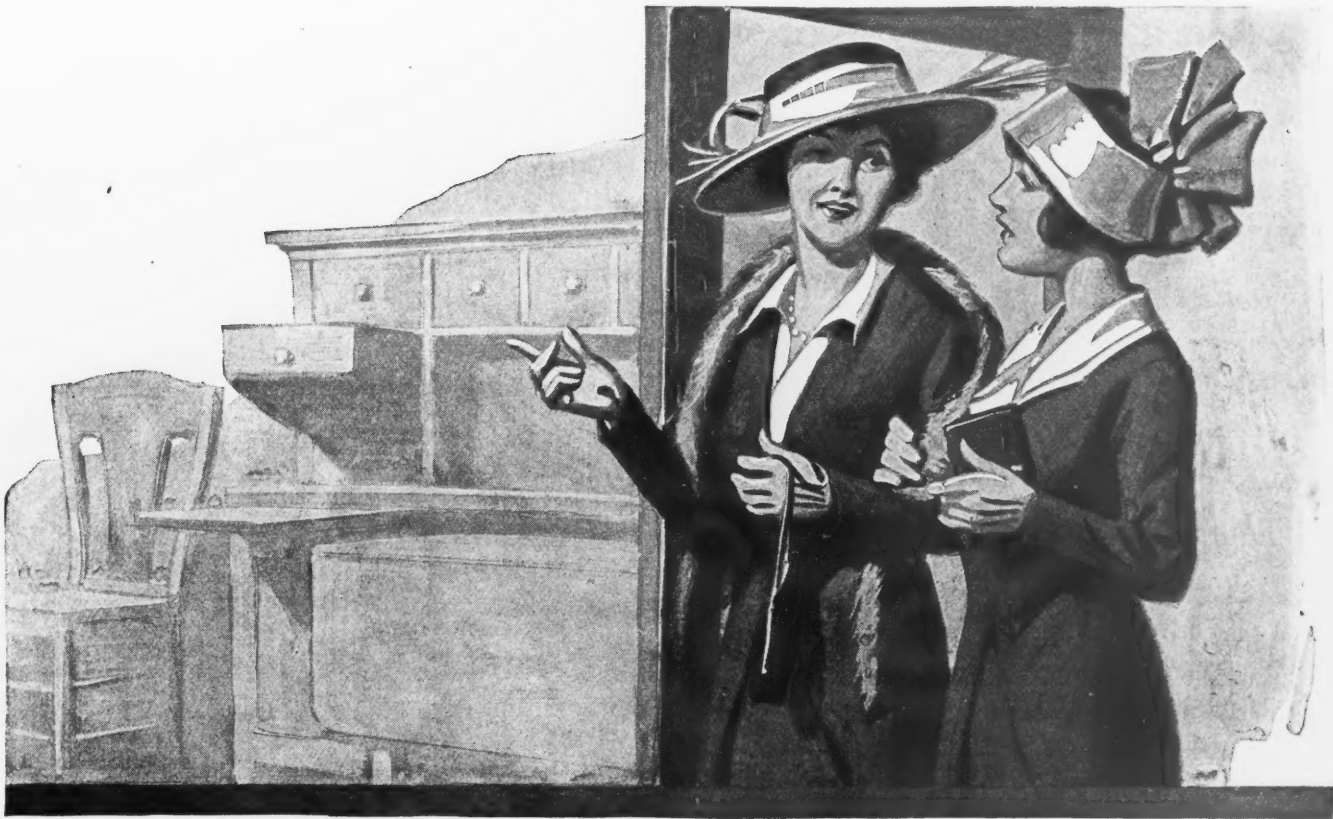




Awarded
Gold Medal
Panama-
Pacific
Exposition

**Every Crystal
User Is On
Your Selling
Force!**

CRY
Electric Washer



A very real thing and a very tangible thing is the fine enthusiasm of the army of Crystal users—it is the foundation upon which the national reputation of the Crystal Washer so firmly rests.

Among the dealers this is most often expressed by the simple phrase, "One Crystal User Soon Brings Another."

The favorable opinion of the Crystal held by the women of your community is based upon a general acknowledgment of its definite mechanical superiorities.

Such features as the Crystal Swinging Wringer, the Crystal Patented Automatic Safety Release and the Crystal

Automatic Oiling System make it unmistakably more attractive to the housewife.

If you belong to that group of progressive merchants who are alive to the rapidly increasing interest in electric washing, send immediately for the Crystal Special Merchandising Book—it points the way to a big volume business in your Washing Machine Department.

Get in touch with Commercial Department M

CRYSTAL WASHING MACHINE COMPANY, DETROIT, MICHIGAN

***The Crystal
Swinging Wringer***



The clothes are wrung from the machine into the rinse water.

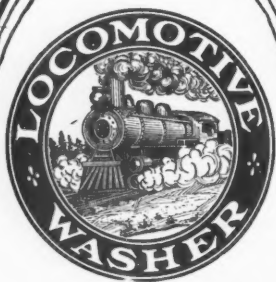


—next from rinse water into the bluing water.



—then from the bluing water into the clothes basket.

Crystal
and Wringer



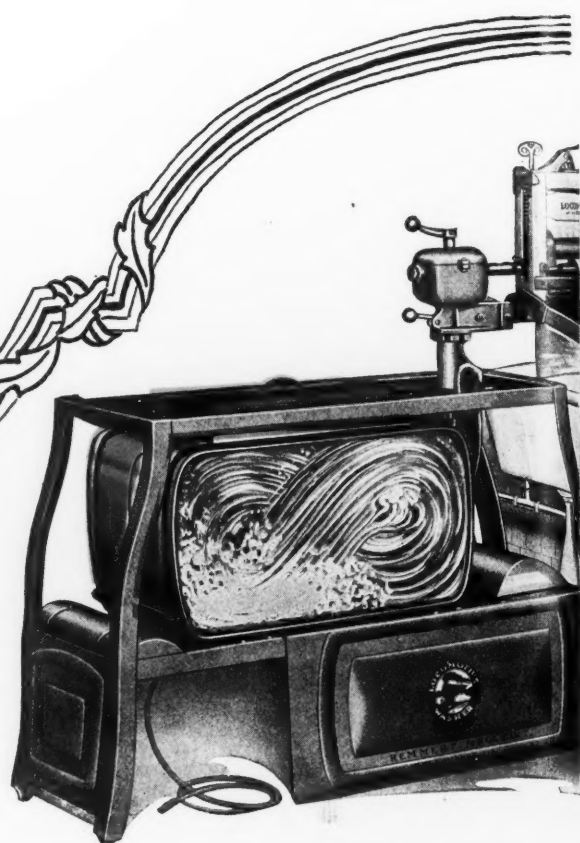
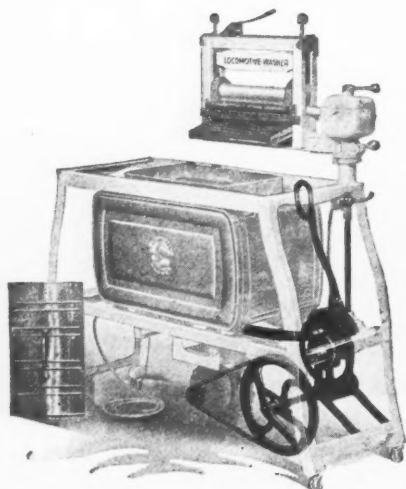
A New Opportunity for Dealers - Jobbers - Agents

The new and novel design of the Locomotive Washer is a big point in its favor. In every household and electrical show it is the center of attraction.

When you put dirty clothes in the demonstrating machine, with its glass sides, and turn on the power, this master washer becomes a positive sensation.

Locomotive dealers everywhere are heavy hitters. They are batting home runs. Every hit is a clean score for an order against all competition. You can't beat them.

If there is no Locomotive agency in your city, you should write or wire for our exclusive agency contract. The quick turnover and large profits will make you happy.



Equipped with Gas

LOCOMOTIVE

"Which Washer?"

The demand for electric washing machines is far greater than the supply. At this time almost anything that may be called a washer finds a ready sale.

But only the fittest can survive. Be careful what you tie to. Line up with a real washer so you will be secure when production again exceeds the demand.

Just now the anxious housewife must accept what she can get. In a few months she will have her choice of several machines. Then she will say "which shall I buy."

Her final choice will be the Locomotive washer, because it is the best washer and it meets her need. It is the washer for you to tie to for the rest of your life.

Remmert

MFG. COMPANY

Belleville, Illinois



Heater

ELECTRIC WASHER

Large Sales

Every buyer is a booster. You will be amazed at the sales resulting from the praise of pleased customers. That's the very best kind of advertising.

We are constantly speeding up production to meet the rapidly increasing demand. We are equipped to fill all orders promptly.

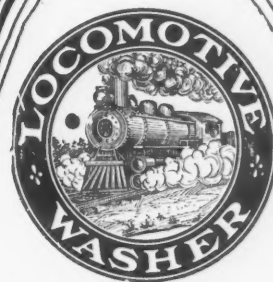
Live dealers are reaping a harvest. Read what the Brooklyn Edison Company says about it:

"The fact that we have over 300 Locomotive washers in 30 days indicates that the simplicity of operation and the thoroughness with which it did its work on demonstration convinced our customers that it was a wise purchase.

Remmert

MFG. COMPANY

Belleville, Illinois



REG. U. S. PAT. OFFICE

Practical - Neat - Durable Complete and Unique

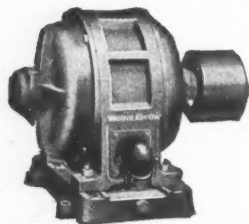
The careful housewife instantly appreciates the wonderful simplicity of this washer. She sees it force boiling suds through the clothes 120 times per minute and buys it.

The Locomotive washes, boils and steams clothes at the same time. The boiler is smooth inside. Nothing to rub, twist, pound or squeeze your clothes.

It has a heavy copper or galvanized boiler, detachable swinging wringer, ironing board cover, gas heater and a 1/4 H. P. motor. Capacity 8 large sheets or equivalent.

This beautiful and complete washer cleans all fabrics in record-breaking time without injury. It will continue to be the choice of intelligent buyers everywhere.





MOTORS

Every industry needs power. Western Electric Motors are furnished in all commercial sizes, voltages and speeds. No matter how large or small the power requirement you can supply an efficient motor.



INTER-PHONES

Show an industrial organization anything that will help them to save time and they have got to have it. The Inter-phone will save time for everyone who uses it. Instant communication with all parts of the building. No operator is required. Inter-phone systems are for the small shop as well as the large factory.



PORTABLE UTILITY MOTOR

What business is there that doesn't need this convenient motor for doing odd jobs? It is so light in weight—only 40 pounds—that it can easily be carried to any job. It is rated at 1/6 horsepower and is furnished for alternating or direct current.



SUNBEAM MAZDA LAMPS

Every industrial manager has read enough about the value of proper lighting to start him thinking. Good lighting means fewer accidents, higher production and more congenial employees. Tell your local industries how the use of Sunbeam Lamps will help them and the results will please you.

YOUR SALES TO

The industries of your town offer you a great opportunity to develop a larger and more profitable business.

This is the electrical age in industry. Every industrial plant makes use of electricity in some way. Without it production could not be maintained.

The need for electrical equipment is growing. Every shop, factory, mill and store is a live prospect—all are potential buyers of electrical apparatus and equipment.

You can do much to develop the use of electricity in industry. Suggest new uses for electrical equipment—tell them how electrical devices will speed up production. If you will only go after this industrial business in the same aggressive manner that



WIRING DEVICES

Think how many more sockets—switches—condulets—porcelains and other wiring devices you could sell if you just put a little effort into developing new uses of electricity.

Western

THE INDUSTRIES

you use to secure your household business, you'll profit by it.

The industries need electrical equipment. Suggest the use of Motors—Safety switches, Inter-phones, Portable Electric Tools, wiring Devices, Lamps and hundreds of other electric appliances, then sell them Western Electric Quality Products.

Half of the merchandising effort is already done if you sell Western Electric Products. Our products are nationally known and we are continually advertising in the most widely read popular, trade and technical papers.

Just put a little sales effort in back of our advertising and your sales to the industries will make money for you.



GENERAL SUPPLIES

Tape—cutouts—tools—reflectors and equipment for every electrical need. The industries need all of these and must buy them. You are the one who should sell to them.

Electric



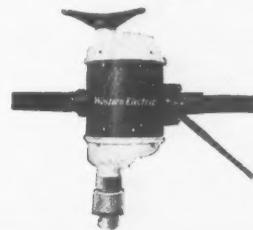
PORTABLE UTILITY LIGHT

Even though darkness falls earlier these days, the work must still be done. You can supply this 200 watt portable utility light which will provide ample light to enable work to go on. This light weighs thirty pounds, can be mounted on a vertical or flat surface, and is of rugged construction. It is a good light for industrial use.



WIRE

Everyone who uses electricity must use wire. New installations are being made every day. There is a big sale for electric wire and selling Western Electric Habirshaw wire is easy, because it has been nationally known for thirty years.



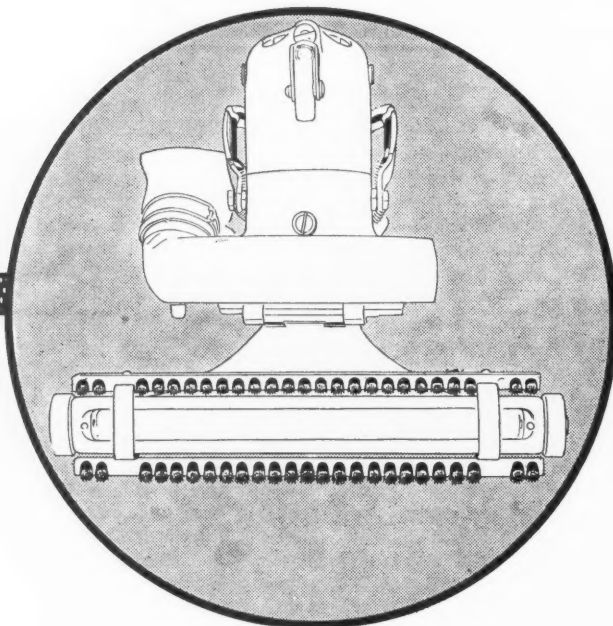
ELECTRIC DRILLS AND HAMMERS

These are time and energy savers that the industries will be quick to appreciate. They are the ideal equipment for light and heavy work. Plenty of power and easy to handle, they do an enormous amount of work—many sizes and speeds.



SAFETY SWITCH

Today the employer is interested in protecting his employees from injury. In doing so he also protects himself. Show him that the Safety Switch will prevent any chance of injury from contact with a live switch. The switch also prevents short circuits.

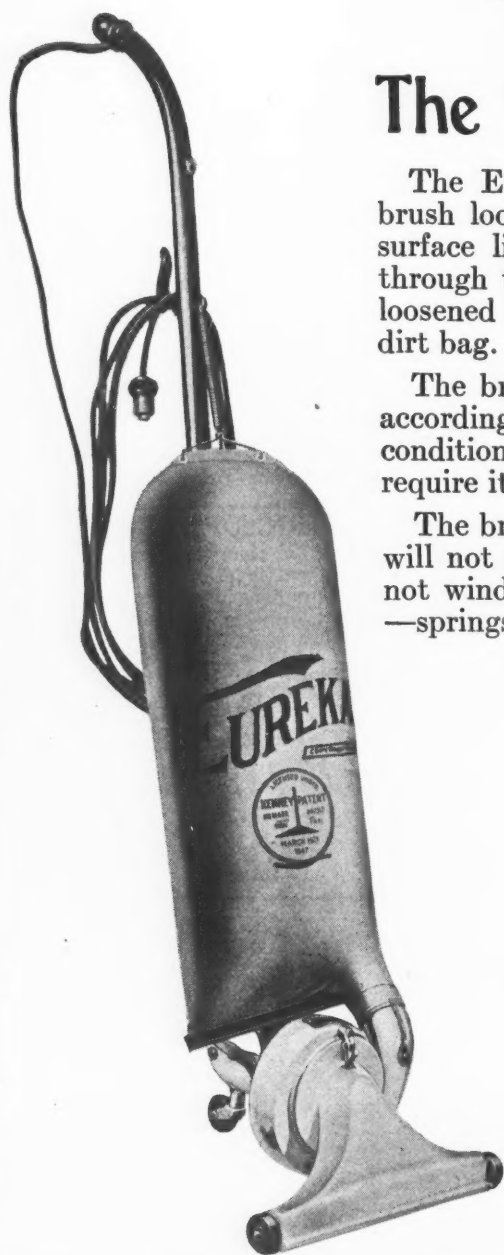


The "Broom Action" Brush

The Eureka straight, hair, positive "broom action" brush loosens the lint, the thread and all other clinging surface litter. The tremendous volume of air rushing through the fabric and up into the nozzle picks up the loosened surface litter and whizzes it on through to the dirt bag.

The brush is detachable—it may be used or not used according to the wishes of the operator. The surface condition of the rugs or carpets being cleaned may not require its use.

The brush being straight and "broom action" in effect, will not mat nor clog the nozzle. Threads and hair do not wind around it. Further, troublesome rubber belts—springs and gears are eliminated.



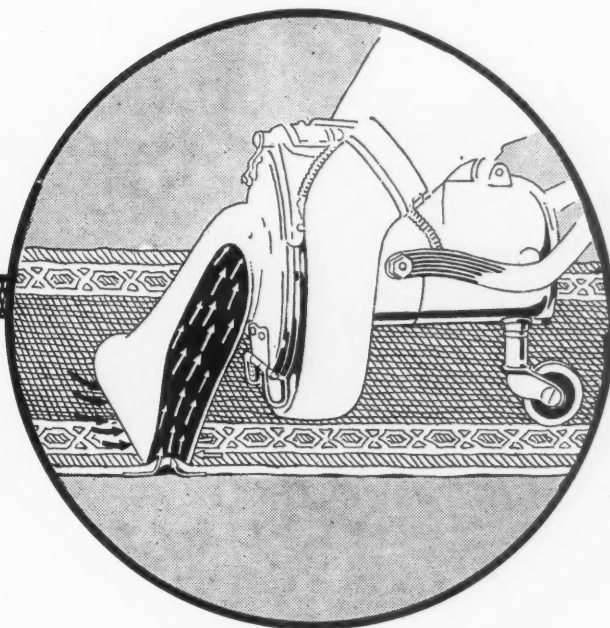
EUREKA
ELECTRIC
VACUUM CLEANER

Eureka Vacuum Cleaner Company
Detroit, U. S. A.

Kitchner, Ont.

London, Eng.

Paris, France



Volume and Velocity

The remarkable cleaning efficiency of the Eureka is the result of its ability to move a great VOLUME of air through all fabrics at a tremendous VELOCITY. Only bonafide electric vacuum cleaners derive their efficiency from this principle. The brush attached to or inserted in the nozzle of this type of cleaner has only one purpose, and that, to remove surface lint, hair, and threads—the air gets the dirt, the dirty dirt embedded in the rug or fabric.

EUREKA
ELECTRIC
VACUUM CLEANER

Eureka Vacuum Cleaner Company
Detroit, U. S. A.

Kitchner, Ont.

London, Eng.

Paris, France



X-Ray Standard Show Window Reflectors Are International Leaders

Because

1. 40% CURRENT IS SAVED
2. EVERLASTING BRILLIANCY
3. SILVER-MIRRORED
4. GLARE IS ELIMINATED
5. SCIENTIFIC DESIGN
6. WILL NOT PEEL, CRACK OR BLISTER
7. EASILY CLEANED
8. EASILY INSTALLED

Ask for our free book, "X-Ray Standard Window Reflectors," which shows how the five X-Ray reflectors are used to light any size window.

NATIONAL X-RAY REFLECTOR CO.

NEW YORK

CHICAGO

SAN FRANCISCO

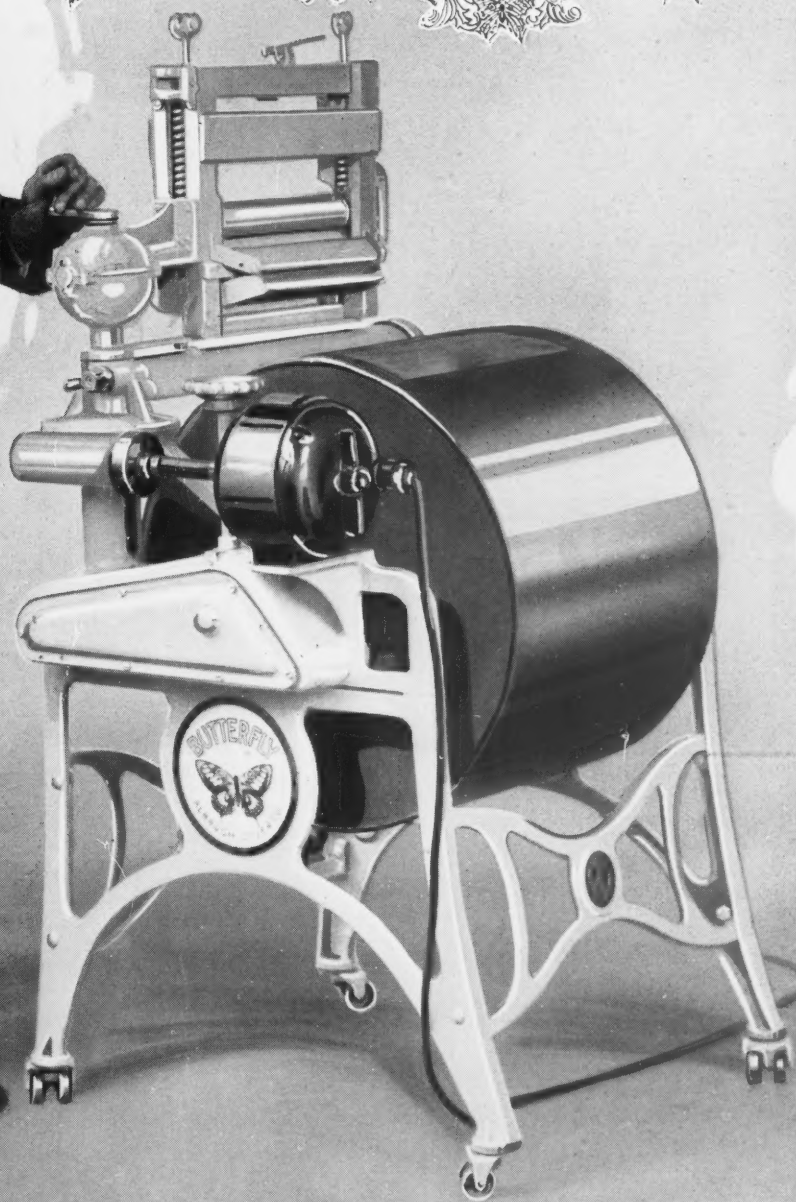
H. W. EDEN

Originator and Pioneer Manufacturer of the
Enclosed Type Washing Machine

Announces the **BUTTERFLY**

a distinctly new and greatly improved machine embodying all the features
proved by his long experience to be most practical and successful in
operation. Ample facilities for the production of Butterfly Washing
Machines are provided in the \$2,000,000 plant of

ALBAUGH-DOVER CO., Chicago
of which company Mr. Eden becomes a Director and Vice-Pres.



BUTTERFLY—Perfected by the Pioneer H. W. EDEN

BUTTERFLY

Perfected by the Pioneer H. W. EDEN

The Butterfly Washing Machine enters the field an assured winner. It introduces no freakish, untried ideas, but utilizes the best features of both the cylinder and oscillating types. It answers the question of which type is best by combining *both*.

EDEN'S New Alternating Principle Gives Double Washing Efficiency

Lifts, Souses, Flushes Clothes as Gently as by Woman's Hands

The Butterfly Washing Machine uses a new alternating principle. By it the clothes are in turn lifted, soured and flushed. This gives double the washing efficiency of the older types, yet handles the clothes more gently than either.

In the lower half of the Butterfly's cylindrical tub is a smooth, perforated wing dividing the tub into two compartments, in each of which clothing is placed. When the tub is started it rotates forward and backward and the wing alternately lifts the clothes in each compartment out of the water and souses them again, thus giving the action of *the cylinder machine*. While the clothes in a compartment are being lifted part of the soapy water flows through the meshes of the fabric and the surplus water cascades over into the opposite compartment and flushes the clothes in that compartment exactly as they are flushed in the *oscillating type machine*. By this double washing method the clothes in each compartment are lifted, dipped and flushed 35 times a minute, and all so gently that not a thread of even the most delicate fabric is worn or injured.

Sturdy, yet light in weight. Built for hard service, yet light running. All parts easily accessible, yet fully protected. Positive in operation, yet gentle in action.

The frame of the Butterfly is of smooth, grey iron, carefully designed to give maximum strength with minimum weight. The cylindrical tub is made of heavy, hard sheet copper, tinned on the inside and polished both inside and out, giving it a smooth, sanitary, easily cleaned surface. It has no heavy, water-soaked working parts to lift out when cleaning. The machine is mounted on large, double wheel roller bearing casters which are built in the frame, eliminating the old trouble of casters dropping out and becoming lost. All mechanism fully enclosed and requires no oiling.

Highest grade materials are used throughout.

Power is transmitted by direct shaft action from the motor through a safety clutch to a worm drive. The worm is made of high-grade steel, hardened and ground after machining; the worm gear is highest-grade phosphor bronze. All other gears are cut from solid stock and have ample strength and wearing surface to insure long life, even under continuous operation, and ball bearings are used wherever excessive wear might occur with ordinary bearings.

The motor which is an absolutely waterproof type, designed especially for this service, and the main driving mechanism, are all assembled in one, conveniently placed, compact unit and the motor is insulated electrically from the frame.

The tub is so constructed that there is no splash even if operated with the cover off, and is designed to retain the heat in the water longer than any other type of washing receptacle.

The wringer is of the reversible swinging type. It is equipped with highest-grade ball bearing rolls and most approved safety release. It swings completely around the circle and may be quickly and rigidly clamped in any position. The entire wringer and its driving mechanism may be readily removed from the machine, for shipment or storage of machine in small space, and as readily replaced.

The frame is painted a soft blue-gray and trimmed with black and bronze, harmonizing perfectly with the lacquered copper tub. The Butterfly has a rated capacity of ten double sheets or the equivalent, with ample provision for overload. It washes quicker, keeps water hot longer, and uses less soap than any machine ever produced.

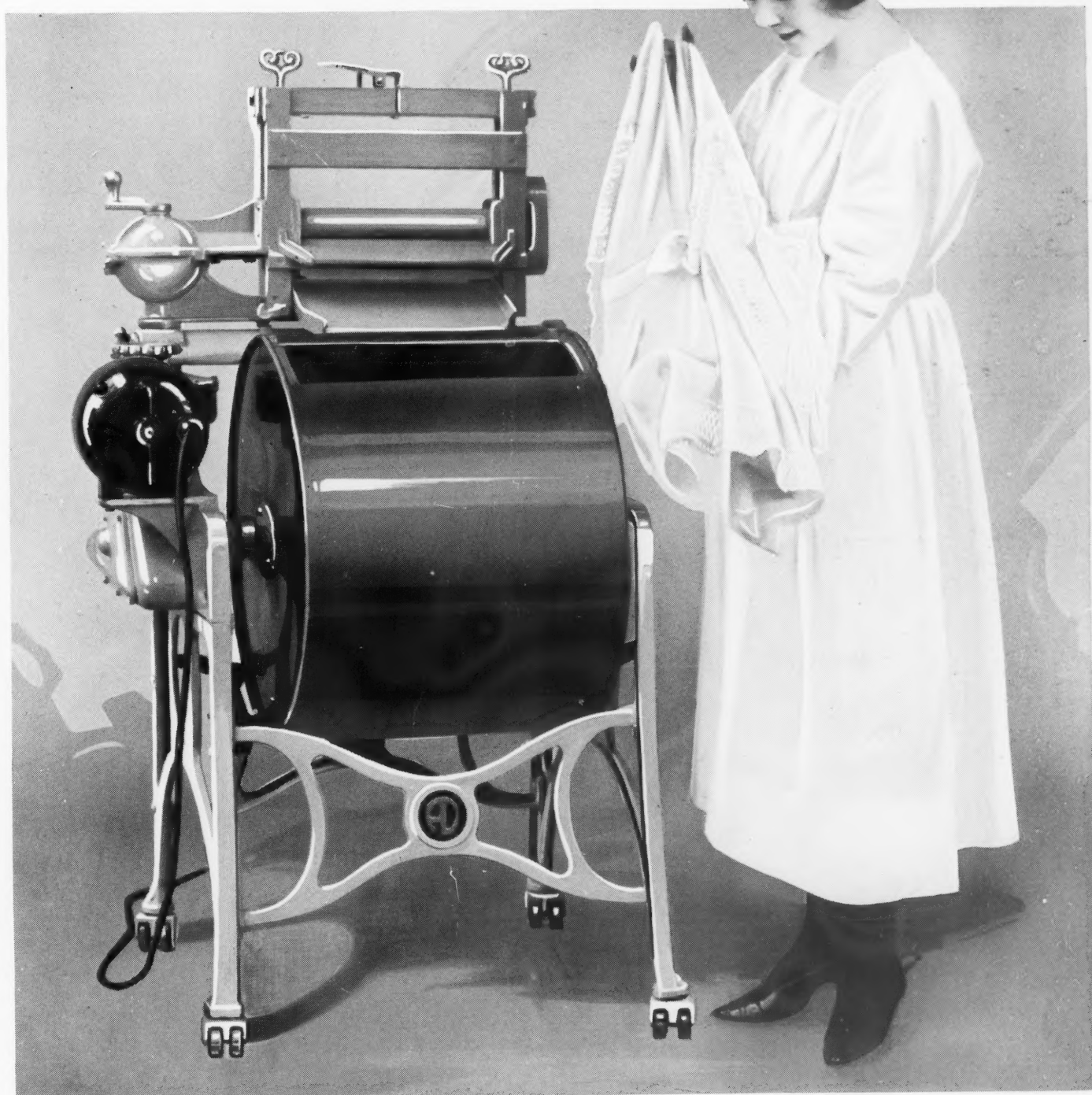
THESE FEATURES PLEASE CUSTOMERS—

and will make the Butterfly instantly the leader in sales wherever the agency is placed. Choicest territory is now available. Prompt action is suggested.

Jobbers and dealers wishing further information should write us today.

ALBAUGH-DOVER CO.

Instantly a Leader
in the Washing Machine Field



CHICAGO - ILLINOIS



This \$2,000,000 Plant Now Producing Butterfly Washing Machines

THE ALBAUGH-DOVER COMPANY is not unknown in the washing machine field. For years we have produced essential parts for other washing machine manufacturers. Albaugh-Dover "Zones of Quiet" gears are in use in hundreds of thousands of washing machines. Their accuracy and quality have helped others to success.

Now we offer the Butterfly as a complete finished product made entirely in our own plant. Our organization is worthy of the machine Mr. Eden has designed. We shall cooperate to give you not only a washing machine which we really believe sets a new standard of efficiency, but we shall also give a service which you, as dealers, will appreciate. Mr. Eden will be in direct personal charge of this department of our business.

ALBAUGH-DOVER CO. :: CHICAGO

First Chandelier Show
and
Lighting Fixture Market
Detroit, Mich.
February 9-13, 1920



Booth 14

Have You Heard of
The National Council
Lighting Fixture Manufacturers

? ? ? ? ? ? ?

It is to your interest to investigate

Write

Charles H. Hofrichter, Sec'y.

8410 Lake Ave.,

Cleveland, Ohio

**There's a
Johns-Manville
Distributor
Near You**

American Electric Co., St. Joseph, Mo.
Andrae, Julius & Sons Co.,
Milwaukee, Wis.
Buckminster, Geo. H. Co.,
Boston, Mass.
Belden Elec. Supply Co., Joplin, Mo.
Baker, Hamilton & Pacific Co.,
San Francisco, Calif.
Electric Supply and Equipment Co.,
Hartford, Conn.
Electric Supply Co., Memphis, Tenn.
Electric Railway & Manufacturing
Supply Co., San Francisco, Calif.
Electric Appliance Co., Dallas, Texas
Erner Electric Co., Cleveland, Ohio.
Fairmont Mining & Machinery Co.,
Fairmont, W. Va.
Funston Elec. Co., Kansas City, Mo.
Gilson Elec. Sup. Co., Oakland, Calif.
Herring Motor Co., Des Moines, Iowa
Honolulu Iron Works, Honolulu, T. H.
Horsman, E. B. & Sons,
Vancouver, B. C.
Inter-Mountain Electric Co.,
Salt Lake City, Utah.
Iron City Electric Co., Pittsburgh, Pa.
Jere Woodring & Co., Hazleton, Pa.
Listenwaller & Gough Co.,
Los Angeles, Calif.
Manhattan Elec. Sup. Co., Inc., N. Y. C.
Manhattan Electric Supply Co., Inc.,
St. Louis, Mo.
Mine & Smelter Supply Co.,
Denver, Colo.
Mine & Smelter Supply Co.,
El Paso, Texas.
Monarch Elec. & Wire Co., Chicago, Ill.
Montana Electric Co.,
Butte & Great Falls, Mont.
Moore-Handley Hardware Co.,
Birmingham, Ala.
National Mill Supply Co.,
Fort Wayne, Ind.
New England Engineering Co.,
Waterbury, Conn.
North Coast Elec. Co., Seattle, Wash.
North Coast Elec. Co., Portland, Ore.
Northern Elec. Co., Minneapolis, Minn.
Northern Elec. Co., Duluth, Minn.
Novelty Electric Co., Philadelphia, Pa.
Peaslee-Gaulbert Co., Louisville, Ky.
Post Glover Electric Co., Cincinnati, O.
Roberts, H. C. Electric Supply Co.,
Syracuse, N. Y.
Star Electric Co., Erie, Pa.
Wahn, Geo H. Co., Boston, Mass.
Washington Electric & Supply Co.,
Seattle, Wash.
Woodhouse Electric Co., Inc.,
Norfolk, Va.
Wetmore Savage Co., Boston, Mass.

One of the hardest jobs in the country

THE electrical jobber's salesman must master an enormous volume of intricate technical knowledge. He must be able to tell you what material on his almost endless list will fill a specific need.

Yes—his job is hard, all right, but what does that mean to you?

It means that you can make this salesman's knowledge *work for you*. For example, he can probably quote you on the very electrical material that you are anxious to get. You will see how true this is by reading the Johns-Manville list of electrical supplies which his house carries

List of Materials

Noark Renewable Fuses—with a dozen exclusive features, eliminating to a large degree defects thought inherent in renewable fuses.

Noark National Electrical Code Standard Fuses—safe and absolutely reliable, with a reputation of 25 years of superiority

Noark Porcelain Cut-Out Bases—a new line that makes open wiring 25 per cent easier to install and maintain.

Friction tapes.

Splicing Compounds.

Noark Protective Devices—for all commercial voltages met in underground and overhead distribution.

Fibre Conduit.

Asbestos Wood—a building lumber

Ebony Asbestos Wood—superior to Electric Slate and Marble.

Molded Insulations.

Fire Extinguishers.

Asbestos, Tapes, Mill Board, Tubing and Lining.

H. W. JOHNS-MANVILLE CO.

New York City

10 Factories—Branches in 63 Large Cities



Through—

Asbestos

and its allied products

JOHNS-MANVILLE
Serves in Conservation

Heat Insulations, High
Temperature Cements,
Asbestos Roofings,
Packings, Brake
Linings, Fire
Prevention
Products

JOHNS-MANVILLE

Electrical Materials

This is your message to more than 130,000 buyers. It appears in the following magazines:

Factory

Industrial Management

Manufacturers' Record

American Machinist

Power

National Engineer

Southern Engineer

Universal Engineer



OK—if it helps
a little

WE are telling more than 130,000 prospects of the value of the Electrical Jobbers' services to them, because we firmly believe that the Johns-Manville Electrical Line is best distributed through these channels.

In telling the buying public where best to obtain electrical supplies, we offer you an opportunity to share in the increased business that is being created.

A stock of Johns-Manville Electrical Materials will help you meet this demand—at a very inviting profit to yourself. Find out what a good proposition we can make you.

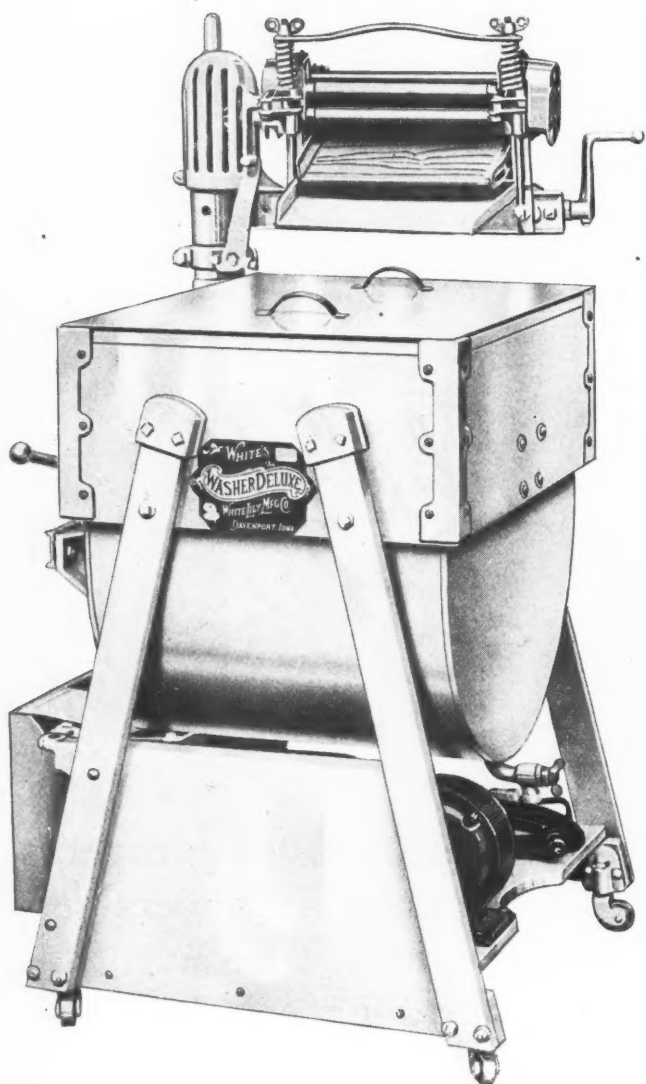
H. W. JOHNS-MANVILLE CO.

New York City

10 Factories—Branches in 63 Large Cities

White's Washer De Luxe

Sells Itself From Your Window



Finished in Ivory White Enamel it makes a very handsome and attractive appearance that appeals strongly to buyers of good Household equipment.

Built Essentially for Service

The De Luxe is a master product, the result of years of consistent effort by pioneers in the washing machine industry. Here is a cylinder washer with swinging wringer that not only surpasses in washing and wringing effectiveness, but besides *is built for service*. Merchants find De Luxe sales are clean profitable sales without comebacks or attendant "Servicing" expense.

The entire White Lily Line offers an unsurpassed opportunity for merchants to successfully develop an exclusive washing machine department.

Features That Make the De Luxe the Machine of Service

Mechanical simplicity insures years of uninterrupted reliable service.

Cylinder reverses at each complete revolution, giving maximum agitation and greatest flow of suds *through* clothes.

Wringer and washer operate at same time. Wringer swings completely around and locks in any position.

All gears are slow moving completely enclosed. De Luxe is built extra strong.

Write for our profitable dealer proposition

White Lily Mfg. Co.

DAVENPORT, IOWA

Who Sells Northern Ohio Its Electrical Goods?

A big factor in the study of any market is [the consideration of those operating there and the way in which they do it.

Cleveland and Northern Ohio, the richest territory between New York and Chicago, has attracted the biggest manufacturers in their lines—and they or their dealers are selling this fertile field through the Plain Dealer.

Here is a partial list of them:

WASHING MACHINES:

Eden Washing Machine
A. B. C. Washing Machine
Alco Washing Machine
Gainaday Washing Machine
Western Elec. Washing Machine
Blue Bird Washing Machine
All Metal Washing Machine
Locomotive Washing Machine
Laundry Queen Washing
Machine
Laundryette Washing Machine
Apex Washing Machine
Thor Washing Machine
Easy Vacuum Washing
Machine
Crystal Washing Machine
Automatic Washing Machine
Geyser Washing Machine
Federal Washing Machine

VACUUM CLEANERS:

Thor Vacuum Cleaner
Hoover Vacuum Cleaner
Ohio-Tuec Vacuum Cleaner
Royal Vacuum Cleaner
Eureka Vacuum Cleaner
Apex Vacuum Cleaner

IRONS:

Simplex Electric Iron
American Beauty Iron
Edison Electric Iron
Universal Electric Iron
Hot Point Electric Iron

HEATERS:

Estate Electrical Heater
Simplex Electrical Heater
Hot Point Electrical Heater
American Beauty Elec. Heater

MAZDA BULBS:

Edison Mazda Bulbs
Westinghouse Mazda Bulbs
Western Elec. Mazda Bulbs

LIGHTING FIXTURES:

Amco Lighting Fixtures
Duplexalite Lighting Fixtures

FANS:

General Electric Fans
Western Electric Fans
Emerson Electric Fans
Robbins & Myers Electric Fans

SEWING MACHINES:

Western Electric Sewing Machines
White Electric Sewing Machines

DISHWASHERS:

Walker Electric Dish Washer
Western Electric Dish Washer

IRONING MACHINES:

Simplex Ironing Machine
American Ironing Machine

FARM POWER PLANTS:

Lalley Light Farm Plant & Power
Delco Light Farm Plant & Power
Fairbanks-Morse Farm Plant & Power

Let us tell you how the Plain Dealer's 77-year prestige and most thorough-going cooperation on record "produces" for electrical advertisers. Write Merchandising Department for surprising facts and figures.

The Plain Dealer

Cleveland



As Simple As Closing Your Knife

If your electric power circuit is protected by Pierce Fuses you need worry no longer about blowouts. It's just as easy to renew a Pierce as to close your knife.

Only 15 seconds required to make a Pierce Fuse new again.

And your workmen will barely know there has been an interruption in your power circuit before the machinery will be running again.

We will gladly send you interesting literature describing in detail the unusual features of Pierce Fuses.

PIERCE FUSE
CORPORATION
BUFFALO, N.Y.

PIERCE

RENEWABLE FUSES

All in favor of this movement



AS a matter of fact, everybody's in favor of the figure 8 movement as applied to the 1900 Cataract Washing machine, for it is that magic movement that makes the 1900 the perfect washing machine.

By means of this figure 8, the water is forced through the clothes in a figure 8 movement which forces it through them four times as often as in the ordinary washer.

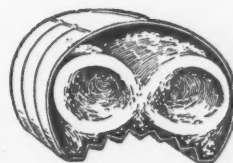
Not only that, but there are not any parts in the tub to rub against the clothes and cause wear and tear. Nor are there any heavy cylinders to lift out and clean after the wash is finished.

All of the superior features of the 1900 Cataract Washer are being advertised in such magazines as The Saturday Evening Post, Good Housekeeping, The Ladies' Home Journal, and other women's magazines and scientific journals. Thus the demand for the 1900 Cataract Washer is increasing day by day.

Can you meet this demand?

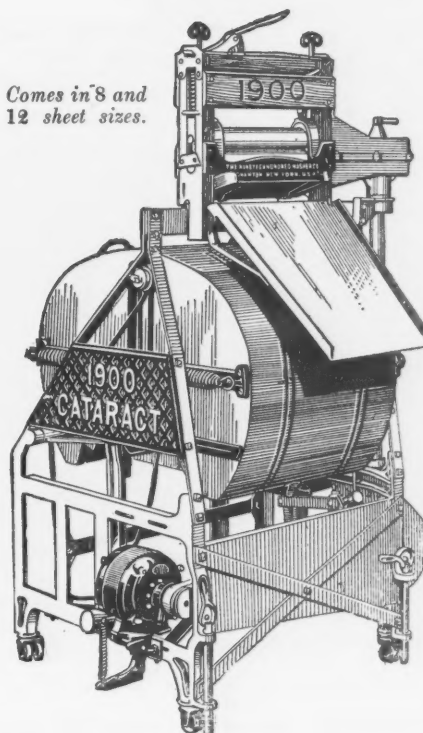
THE 1900 WASHER CO.
Binghamton, N.Y.

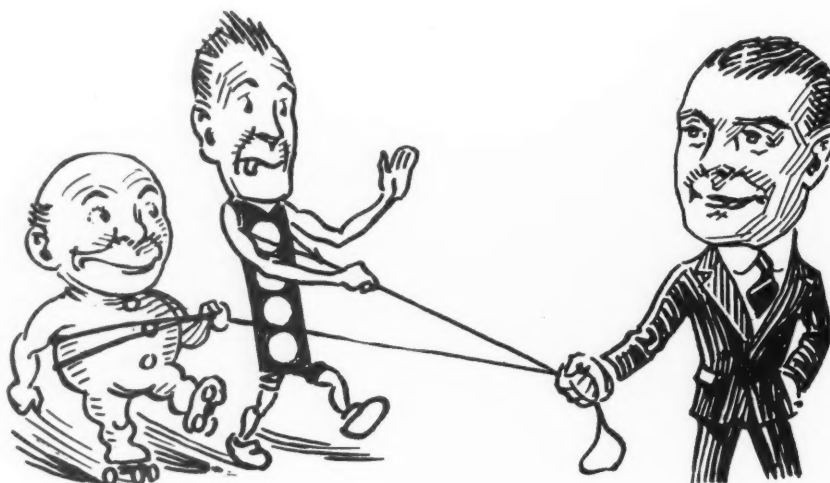
Canadian Factory and Office
Canadian 1900 Washer Company, 357 Yonge St., Toronto



The water swirls through the clothes in a figure 8 movement, and four times as often as in the ordinary washer.

Comes in 8 and 12 sheet sizes.





You rope in the DURADUCT Twins

to work for you when you use the conduit
with the single wall and the roller-
bearing wireway.

TUBULAR WOVEN FABRIC COMPANY
MANUFACTURERS • PAWTUCKET • R. I.
A. HALL BERRY • GENERAL SALES AGENT
71-73 Murray Street, New York 9 So. Clinton Street, Chicago
WENDELL & MACDUFFIE CO., 61 Broadway, New York City
Distributors for all foreign countries except Canada
Northern Electric Company, Distributors for Canada
LIMITED

THE SPIRIT of COOPERATION

EMULATION of nature is the best illustration of "The Spirit of Cooperation."

Man sows the seed: it rains; the sun shines; the earth gives up her blessings which mankind harvests.

No man attains success, or even progress, except by the aid of his fellow man. There is no such thing as an individual succeeding solely by his own efforts.

The power company plows the ground and sows the seeds of success for the entire industry. The manufacturer, wholesale distributor, contractor and dealer promote a spirit of fertile good-will; and the public reaps the harvest.

The electrical field is destined to develop and grow in the minds of the people only in such proportion as is fostered by each branch of the industry.



SAN FRANCISCO
OAKLAND
SEATTLE

PACIFIC STATES ELECTRIC CO.

LOS ANGELES
PORTLAND
SPOKANE

Industry Needs **SOL LUX** Lighting

Industry everywhere is calling for improved lighting. Managers in all businesses realize its many advantages.

First of all, working conditions are greatly improved, which results in increased production, the most crying need of industry today. Further, improved lighting reduces breakage, spoilage and accidents, which are of great importance.

The problem of the contractor-dealer is to bring to industrial manager lighting equipment which will measure up to the standards of today.

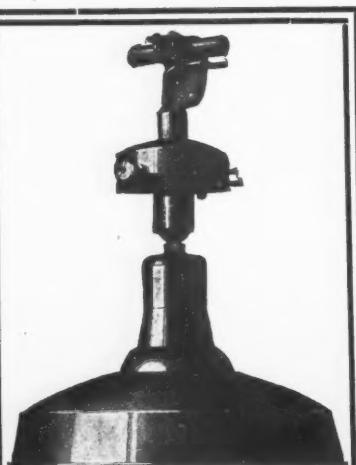
Cutter "SOL LUX" Industrial Reflectors and Fixtures will enable you to supply this demand.

Show the details of Cutter Equipment—the R-L-M Standard Dome Reflector, the Holder-Socket Reflector, the Automatic Cut Out Hanger which allows lighting units to be lowered for cleaning. These features and improvements will bring you much desirable business and net you a good profit.

Other Cutter Quality products are—Panelboards (removable-from-the-front); Cut-Out Boxes (with the Contractor's Nameplate); Flood-lighting Projectors; Regent "C" Film Sockets; Sign Lights; etc.

Write today and find out about the Cutter Service that goes with the liberal Cutter Sales Plan.

Cutter Handy Wiring Tables and Illumination Data should be in the hands of every Contractor-Dealer. It is yours for the asking.



Cutter Automatic Cut-Out Hanger
with Holder-Socket-Reflector
(R L M Standard Dome Type)

GEORGE CUTTER COMPANY

403 Notre Dame Ave., South Bend, Ind.

Chicago Los Angeles Detroit San Francisco New York Seattle



A Modern Installation of Cutter Lighting in a Textile Mill.

Note the uniformity of illumination, and the detail shown to the farthest corner of the room.

CONDULETS



PROTECT the Operator

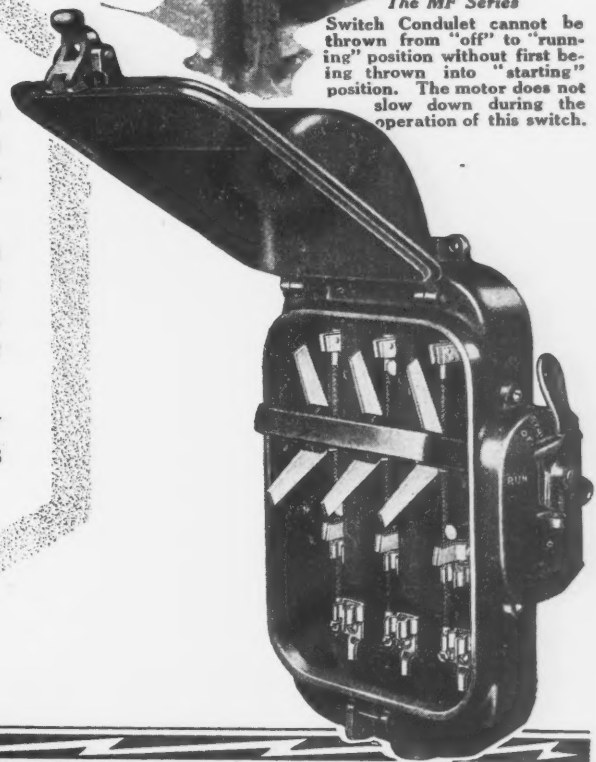
SAFETY to the operator—protection to your plant—are both obtained by the use of Crouse-Hinds Motor Starting Switch Condulets.

The iron-clad housing makes it impossible for the operator's hands or clothing to come in contact with live metal parts, which is an ever-present danger where an exposed knife switch is used.

Every plant with motor driven machinery should have the Crouse-Hinds Safety Bulletins at hand; write for them today.

CROUSE-HINDS COMPANY
SYRACUSE, N. Y.

Condulet the Job



The MF Series
Switch Condulet cannot be thrown from "off" to "running" position without first being thrown into "starting" position. The motor does not slow down during the operation of this switch.

CROUSE-HINDS

PANELBOARDS

KNIFE SWITCHES

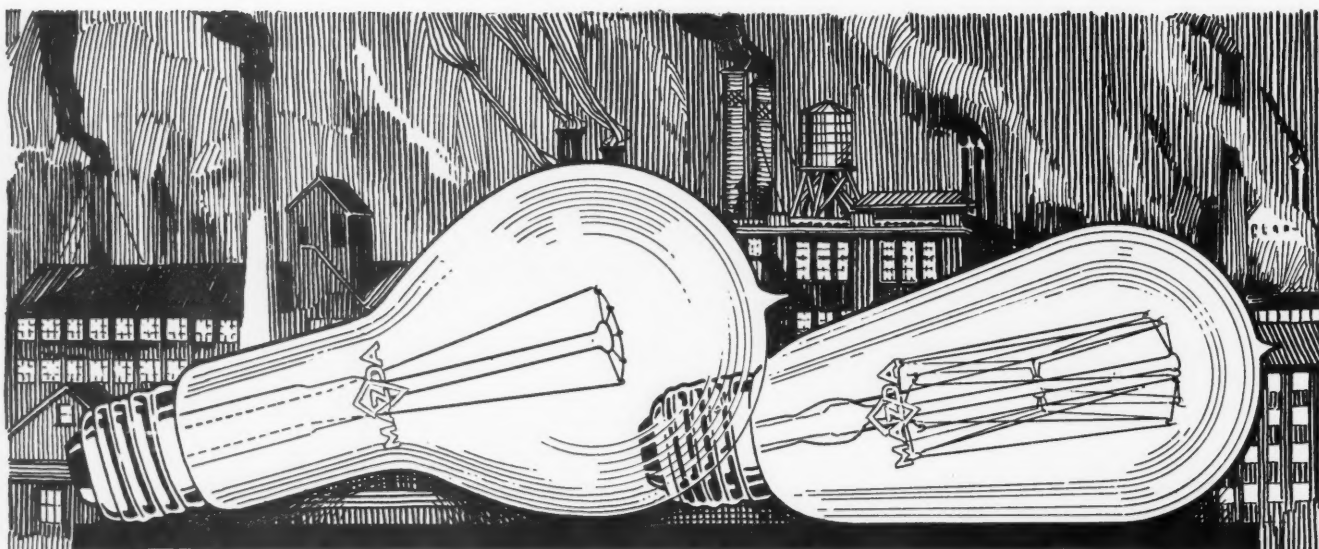
GUY



ANCHORS

CONDULETS

FLOODLIGHTS



A Winning Combination

The FRANKLIN MAZDA C LAMP and the
FRANKLIN MAZDA MILL TYPE LAMP.

THEY enable you to put good light—light that speeds up production, cuts down waste and “seconds,” and makes for the increased efficiency of workers—in every industrial plant.

Start an aggressive campaign for this business. Circularize the executives with Franklin advertising material on factory lighting. Explain to them the superior lighting efficiency of the Franklin MAZDA C, Lamp—how it floods the room with bright, pleasant, uniform light.

And if they require a more rugged lamp for local lighting, show them the Franklin MAZDA Mill Type Lamp. Call their attention to the steel shank on which the glass arbor is mounted, so as to absorb shocks, jars and vibration. There is no longer any excuse for the old style, inefficient carbon lamp being used anywhere.

**Franklin Incandescent Lamp Works
of
Westinghouse Lamp Company**

165 Broadway N.Y. City.

Sales offices and Warehouses throughout the Country

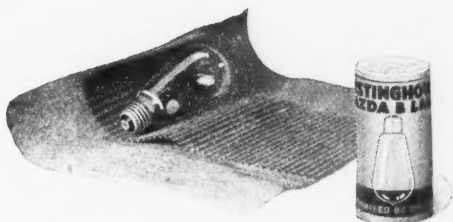


FIG. 1.
Each lamp is individually wrapped in an attractively printed wrapper.



FIG. 2.
Lamps are then packed in this sturdy cardboard tray.

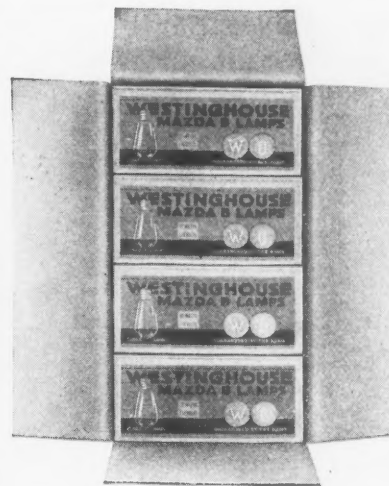


FIG. 3.
Trays are placed in an outer container of double-faced corrugated board.

Safer, Better Packing for WESTINGHOUSE MAZDA LAMPS

IN order to reduce to a minimum the breakage loss in the handling and shipping of incandescent lamps, an improved method of packing has been devised. This new method is gradually being put into effect on shipments from our factories.

At present the new packing is being used for the 10 to 60-watt sizes of the MAZDA B LAMPS, and for the 50 and 75-watt MAZDA C LAMPS.

The three most important steps in this improved method of packing, as illustrated above, are as follows:—

1. Instead of lamps being simply inserted in a corrugated paper sleeve as heretofore, they are now being wrapped in attractive individual wrappers. Each wrapper bears a label showing the type of lamp, wattage and voltage. The ends of the wrapper are tucked in, thus affording better protection to the lamp.

2. The individually wrapped lamps are then packed in strong, cardboard trays (Fig. 2) which are of uniform width and depth: the height, however, varying according to the length of the lamp. A tray holds from 16 to 30 lamps, depending on the size of the lamp.

The contents of each tray are clearly indicated on labels on the sides. Each tray also bears a reproduction of the type of lamp it contains, so that dealers can tell at a glance what type is in any tray—that is, whether straight-side, globular or pear-shape. Being attractively printed in the familiar Westinghouse colors, orange and black, the trays make a striking appearance on the dealers' shelves.

These trays are of sufficient strength to permit their being shipped without extra packing.

3. When several trays of lamps are to be shipped to a customer, they are placed in a strong outer container, as shown in Fig. 3.

As explained above, not only does the new packing insure better protection for the lamps, but it also makes easier and more economical the packing and re-shipping of lamps by distributors. No excelsior is required, thus eliminating the fire hazard. As the new packing is much smaller than the old style, it requires less storage space.

Comparative shipping tests show that the new method of packing is far superior to the old one in every way.



Westinghouse Lamp Company

165 Broadway, New York

Sales Offices and Warehouses Throughout the Country
For Canada—Canadian Westinghouse Co., Ltd.,
Hamilton, Ont.



GUARANTEED BY THE NAME

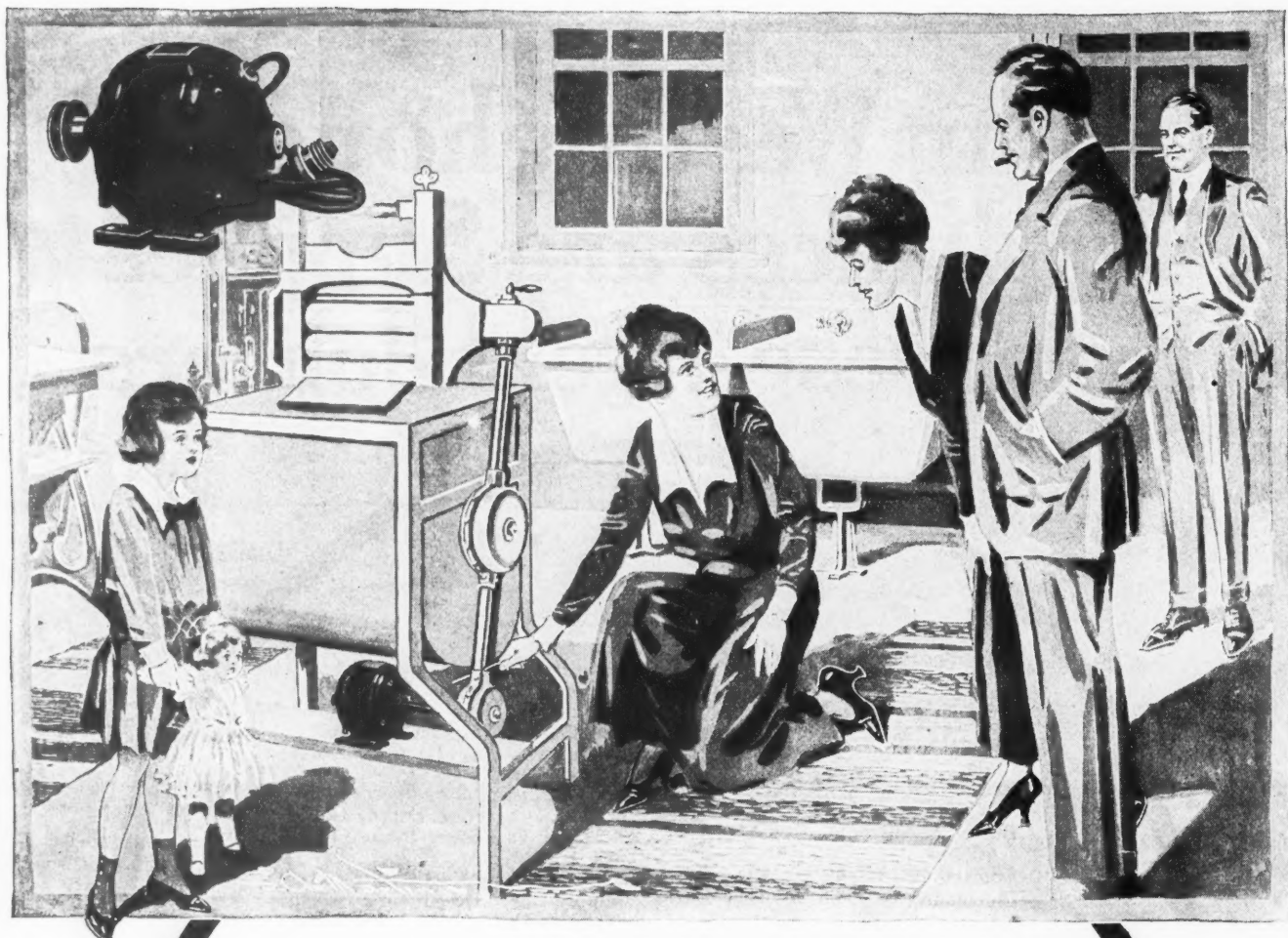
Buy Westinghouse Appliances and Supplies From These Agent Jobbers

Atlanta, Ga., Gilham Scheon Electric Co.
 Birmingham, Ala., The Moore-Handley Hardware Co.
 Bluefield, W. Va., Superior Supply Co.
 Buffalo, N. Y., McCarthy Bros. & Ford.
 Butte, Mont., The Montana Electric Co.
 Chicago, Ill., Illinois Electric Co.
 Cincinnati, O., The Johnson Electric Supply Co.
 Denver, Colo., Mine & Smelter Supply Co.
 Detroit, Mich., Commercial Electric Supply Co.
 El Paso, Tex., Mine & Smelter Supply Co.
 Evansville, Ind., The Varney Electric Supply Co.
 Houston, Tex., Tel-Electric Co.
 Indianapolis, Ind., The Varney Electric Supply Co.
 Kansas City, Mo., Satterlee Electric Co.
 Los Angeles, Cal., Illinois Elec. Co.
 Louisville, Ky., Tafel Electric Co.
 Memphis, Tenn., Riechman-Crosby Co.
 Milwaukee, Wis., Julius Andrae & Sons Co.
 New Orleans, La., Electric Supply Co.
 New York, N. Y., Northwestern Electric Equipment Co.
 Oklahoma City, Okla., United Electric Co.
 Omaha, Neb., The McGraw Co.
 Philadelphia, Pa., H. C. Roberts Electric Supply Co.
 Pittsburgh, Pa., Robbins Electric Co.
 Portland, Ore., Fobes Supply Co.
 Richmond, Va., Tower-Binford Electric & Mfg. Co.
 Rochester, N. Y., Rochester Electric Supply Co.
 Salt Lake City, Utah, Intermountain Electric Co.
 St. Joseph, Mo., Columbian Electrical Co.
 St. Louis, Mo., Central Telephone & Electric Co.
 St. Paul, Minn., St. Paul Electric Co.
 San Francisco, Cal., Electric Rwy. & Mfgs. Supply Co.
 Scranton, Pa., Penn. Electrical Engineering Co.
 Seattle, Wash., Fobes Supply Co.
 Sioux City, Ia., The McGraw Co.
 Spokane, Wash., The Washington Electric Supply Co.
 Syracuse, N. Y., H. C. Roberts Electric Supply Co.
 Tulsa, Okla., United Electric Co.
 Washington, D. C., Carroll Electric Co.
 Wichita, Kansas, United Electric Co.

Westinghouse Electric & Mfg. Co.
 East Pittsburgh, Pa.



Westinghouse



"I call it the trouble-proof washer" said Mrs. Martin, "because it has the Trouble-Proof Motor."

When the Sale Turns Salesman

When your washer sales increase *without* increased selling effort, it is a pretty safe bet that you are handling the *right* washer—the washer with

The Westinghouse Trouble-Proof Motor

Freedom from trouble always identifies Westinghouse Motor-Driven Washers, and accounts for the growing dealer-confidence in *all* Westinghouse Motor-Driven Appliances.

It will pay you to sell the washer the housewife refers to as trouble-proof.

Give us the opportunity to describe the trouble-proof features of the TROUBLE-PROOF Motor; they are convincing selling arguments.

Ask for descriptive Circular 7300

Westinghouse Electric & Manufacturing Co.,
East Pittsburgh, Pa.



Westinghouse

UNIVERSAL

ELECTRIC

Christmas Gifts

The wise dealer is the one who stocks "UNIVERSAL" Products. He has found that they are the fastest moving and best profit makers that were ever placed on the market.

Quick turnovers are brought about by "UNIVERSAL" National Advertising, backed by merchandise of real quality. Leading magazines are continually placing these goods before the public so that now the UNIVERSAL Trade Mark is known in almost every home.

Housewives are asking every day for these goods and will look to you to supply this demand.

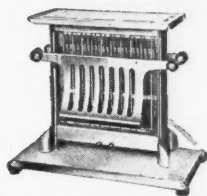
It's up to you. Act today—not tomorrow.

LANDERS, FRARY & CLARK
New Britain, Conn.

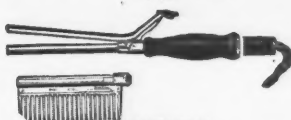
UNIVERSAL



UNIVERSAL
Coffee Urn
No. E9166 \$22.50



UNIVERSAL
Toaster
No. E946 \$6.50



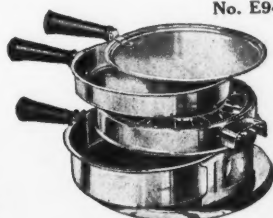
UNIVERSAL
Curling Iron
No. E99011 \$7.25



UNIVERSAL
Tea Ball Tea Pot
No. E9046 \$16.00



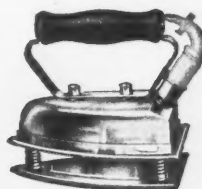
UNIVERSAL
Coffee Percolator
No. E9646 \$17.50



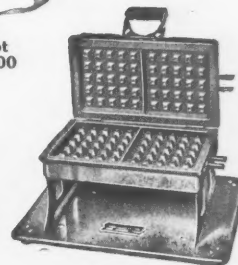
UNIVERSAL
Four Heat Round Grill
No. E984 \$12.00



UNIVERSAL
Heating Pad
No. E9940 \$10.00



UNIVERSAL
Iron
No. E905 \$7.00



UNIVERSAL
Waffle Iron
No. E935 \$16.50

Sell the Washer



Gainaday

Washer

Wringer

That Sells Itself

A Few Territories Still Open

If you're ready to talk business write us. We'll give you details of our plan to sell this time-tested machine in every progressive community.

The new Gainaday factory is nearing completion. Production will soon be multiplied. Not only will the need for more Gainadays in "old" territories be met, but *new Gainaday dealers* will reap the harvest of Gainaday sales.

A Complete Advertising Service for Gainaday Dealers

The "missionary" work is all done—Gainaday advertising in the Saturday Evening Post, Good Housekeeping, etc., have firmly established a definite *good will* for this electric washer and wringer. You can easily capitalize this by using our advertising "helps" for all they are worth.

Besides the wealth of folders, display cards, movie slides, photographic portfolios, etc., we are now prepared to help Gainaday Dealers with an advertising innovation. It is the "Gainaday Newspaper Advertising Book," a large twenty-four page book from which you

can build your own newspaper advertisements. You get away from a stereotyped style of ad, for with it you can build a *thousand advertisements* and make them all different. The plan is so simple, you can even turn the job over to a competent secretary or assistant. *Only Gainaday service includes such a book as this.*

The Gainaday is a cylinder-type machine with every worth-while feature. Besides zinc cylinder, there is the electric wringer which swings to *any* position, automatic friction drive, copper tub, handy switch button, strong motor, and so on.

We Want to Hear from the Most Progressive dealer in Your City

PITTSBURGH GAGE & SUPPLY COMPANY

Manufacturers

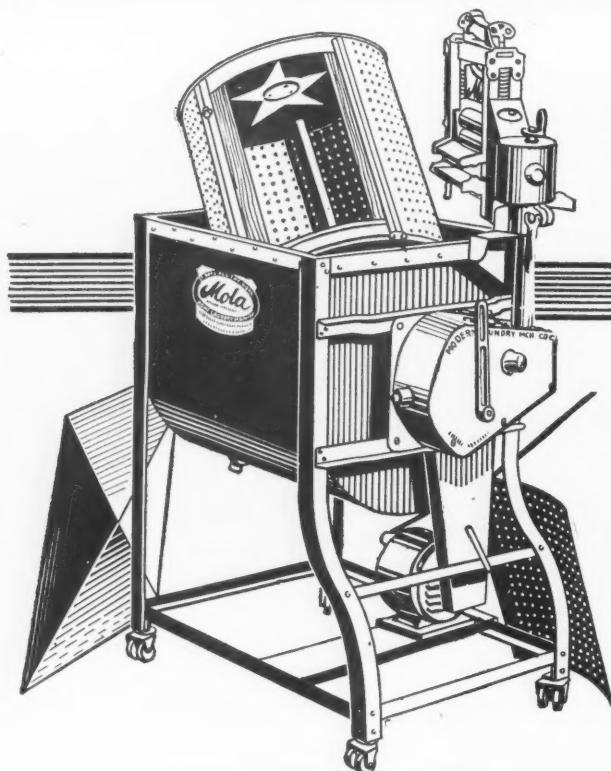
3010 Liberty Avenue, Pittsburgh, Pa.



Gainaday

Washer

Wringer



Set the Pace

In Washer Sales and Profits with the MOLA Home Laundry Machine

Read These Important Features They Mean Easier Sales

- (1) Heavy galvanized or copper cylinder, perforated with smooth holes of proper size to do the best washing.
- (2) Heavy galvanized or copper tub.
- (3) Reinforced cover with handles.
- (4) Gas heater attachment.
- (5) Large double-wheel swivel casters. Make moving easy and noiseless.
- (6) Splash-proof, $\frac{1}{4}$ H.P. motor (oversize).
- (7) Special belt drive (covered) with exclusive simple belt tightener.
- (8) Cylinder door which is easy to put on and locks securely in place.
- (9) All working parts enclosed and running in hard oil.
- (10) Neutral lever to stop cylinder. Lifting small latch automatically releases and starts cylinder.
- (11) Swinging wringer which can be locked in any position by friction clamp.
- (12) Steel angle brace to prevent sagging of wringer.
- (13) Convenient wringer control, starts, stops or reverses.
- (14) Patented safety release on wringer.
- (15) Cylinder reverses every fourth revolution.



Tie up with a Real Washer, whose many important features make a sale at one demonstration.

The MOLA is not made just to be sold. For years it has been giving *washer satisfaction* from coast to coast. It is the machine that you will want yourself after seeing it demonstrated.

The MOLA is made from the best materials, by skilled workmen which insures a machine that will give long, satisfactory service.

It is scientifically designed, and washes just like the machines in the large steam laundries.

The gas heater attachment brings the water to the proper temperature and keeps water from cooling. This means better and quicker washing.

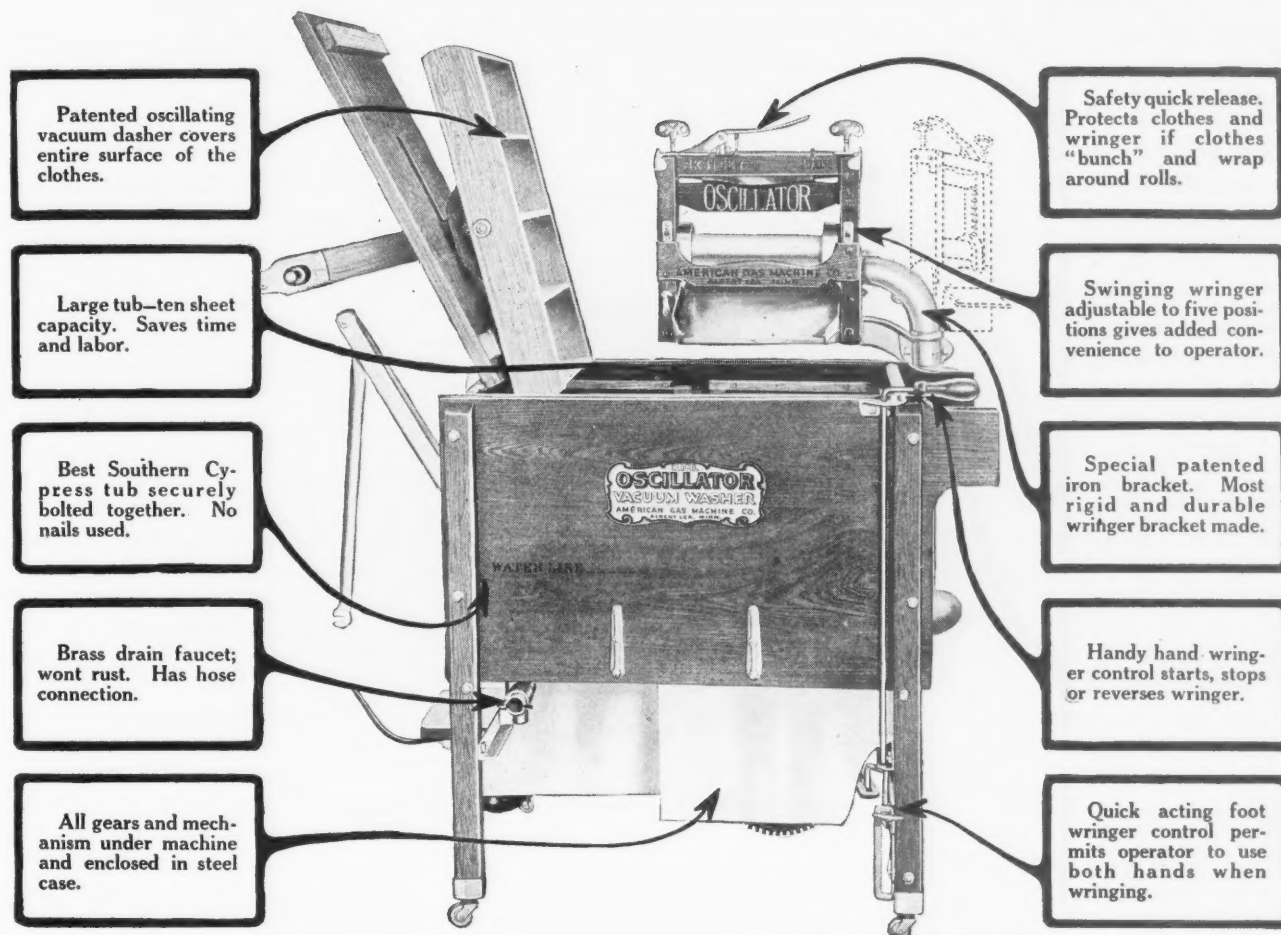
You are losing money every day that you delay in learning about the MOLA. Write or wire today for complete information and prices.

Modern Laundry Machine Co.

1415 East 19th Street
Kansas City, Mo.

More Sales! Bigger Profits!

With less time and energy, on the OSCILLATOR VACUUM WASHER



DEALERS! JOBBERS! Here is the greatest washer opportunity ever offered you. Here is a machine that you can sell whole-heartedly. Every sale is truly a favor to the customer and makes of him a fast friend and booster.

Look at the illustration and notice the important features of the OSCILLATOR Vacuum Washer. Practically every demonstration means a sale.

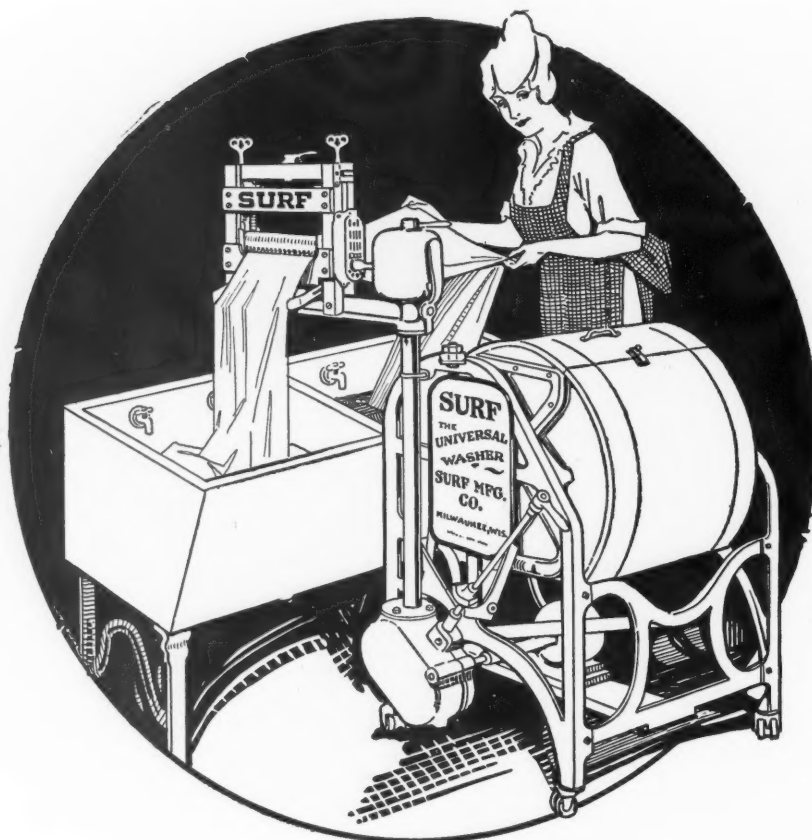
And back of every sale is our factory guarantee which indicates our faith in the "OSCILLATOR."

Agencies and Territories are going fast. Don't delay and let this opportunity slip by. Write today!

AMERICAN GAS MACHINE CO., INC.

ALBERT LEA, MINN.

EASTERN OFFICE: NEW YORK, N. Y.



Why "service to customers" is easy for SURF dealers

The simplicity of mechanical parts in the Surf Washer makes accidents and repair work rarely necessary.

But when trouble does occur, the Surf never need be removed from the home of its owner.

The entire driving mechanism is removable, and can be taken off the

machine by, merely loosening two bolts.

Besides, all parts of the Surf are standard and can be replaced from stock.

The dealer who handles the Surf can be sure of giving maximum satisfaction to his customers with minimum effort and expense.

SURF

ELECTRIC CLOTHES WASHER

Made by the Surf Mfg. Co., 109-13 Clinton St., Milwaukee, Wisconsin.

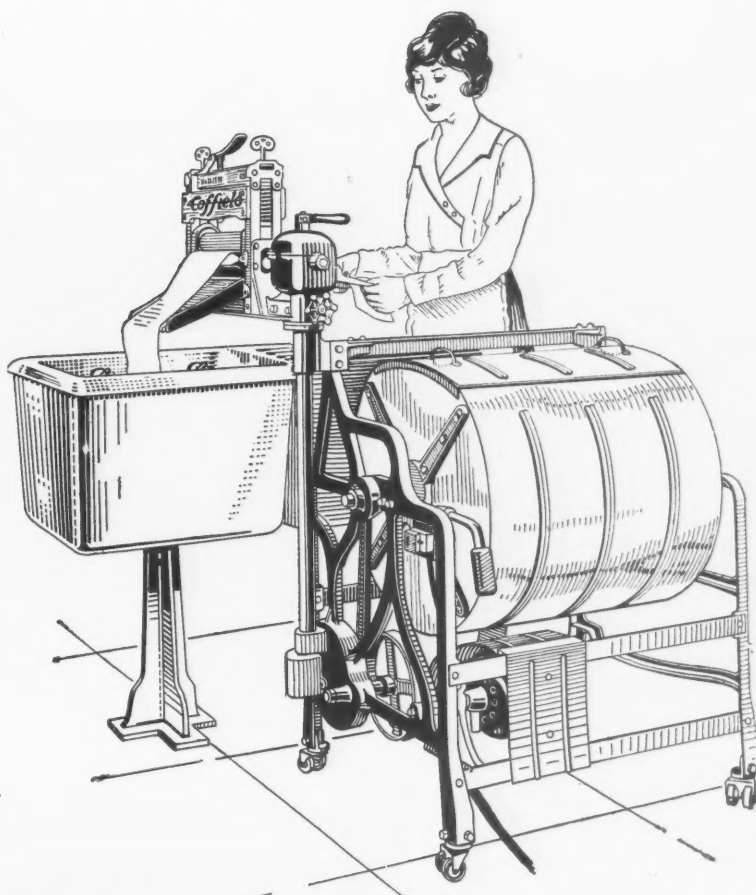
DEALERS ARE INTERESTED

In the Coffield Electric Washer

—and the reasons are found in its many points of mechanical superiority which make it so easy to sell—and stay sold.

For instance, the tub of the Coffield does not swing beyond the frame—so the machine can be moved right up to the stationary tubs. The wringer arm is of sufficient length and so arranged that when swung around it brings the wringer into exactly the right position over the tubs.

The cut to the right shows the operator wringing into the blue water. The lower cut shows the clothes being rinsed from the blue water to the basket.



Coffield

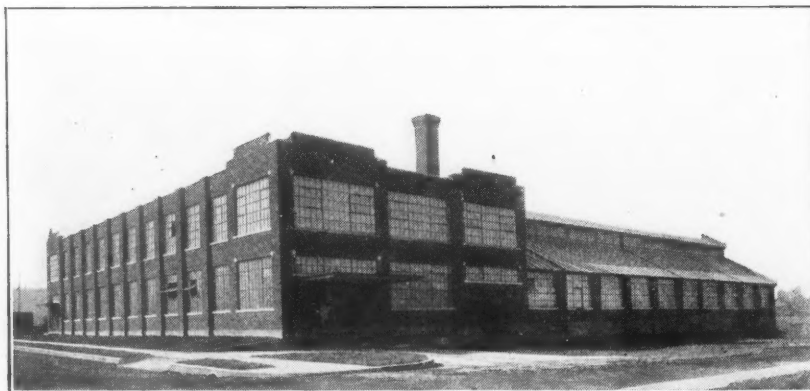


With its rocking copper tub—12" Swinging Wringer, with Clothes Chute and Water Board mounted rigidly in the wringer frame (nothing loose requiring constant adjustment)—all working parts out of the way on the inside of the frame—the Coffield presents a selling proposition that always and instantly appeals.

The Coffield sells easily and stays sold. It is dependable and gives constant service and satisfaction—so you are not constantly sacrificing profits in keeping it keyed up to performance.

Write or wire for further special information.

The COFFIELD MOTOR WASHER CO.
DAYTON, OHIO, U. S. A.



*The new Hoover factory in Canada. Constructed for expansion.
30,000 square feet to start*

The whole world is calling for The Hoover. Our large plant at Hamilton, Ontario, has been completed to supply Canada and the countries overseas. It releases our full output at North Canton for dealers in the United States. This output totals almost three times as many Hoovers as we were building a year ago.

THE HOOVER SUCTION SWEEPER COMPANY

World's largest electric cleaner makers

North Canton, Ohio

Hamilton, Ontario

***The* HOOVER**
ELECTRIC SUCTION SWEEPER

It Beats... as it Sweeps as it Cleans

An Effective Washing Principle with a Real Selling Value

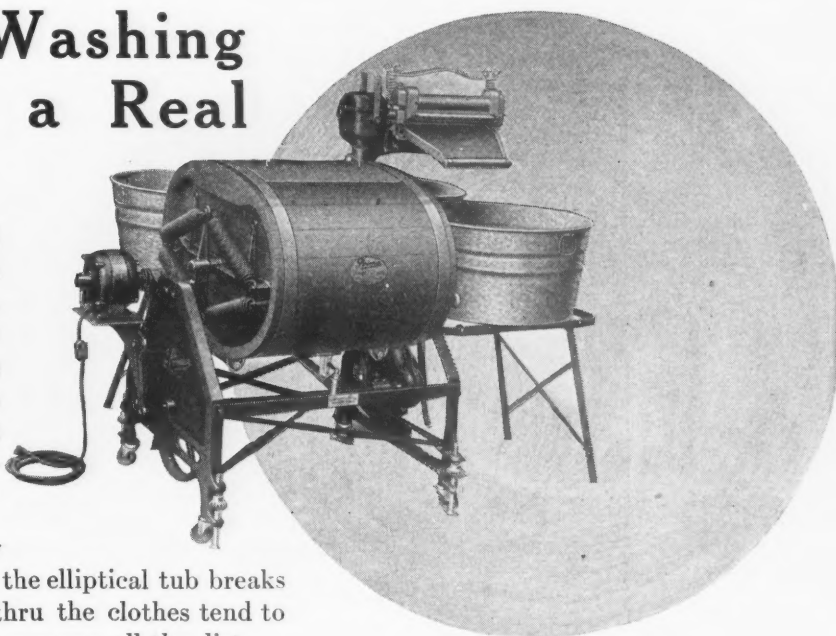
THE PRIMA has a *thorough and effective* washing principle which among its other fine features is responsible for its big sales the country over. Wherever PRIMA Dealers have demonstrated the working of this **SURFACE TENSION** Principle—it has at once met universal approval which resulted in big sales.

And it will do this for YOU. Show the prospect how the hammer stroke of the elliptical tub breaks up the soap suds which when passing thru the clothes tend to unite and form a suction which quickly removes all the dirt.

The PRIMA does not wear and tear the clothes—the amount thus saved will pay for the PRIMA in from six to eight months.

Start now! build your Electric Washer trade on a *tried* product.

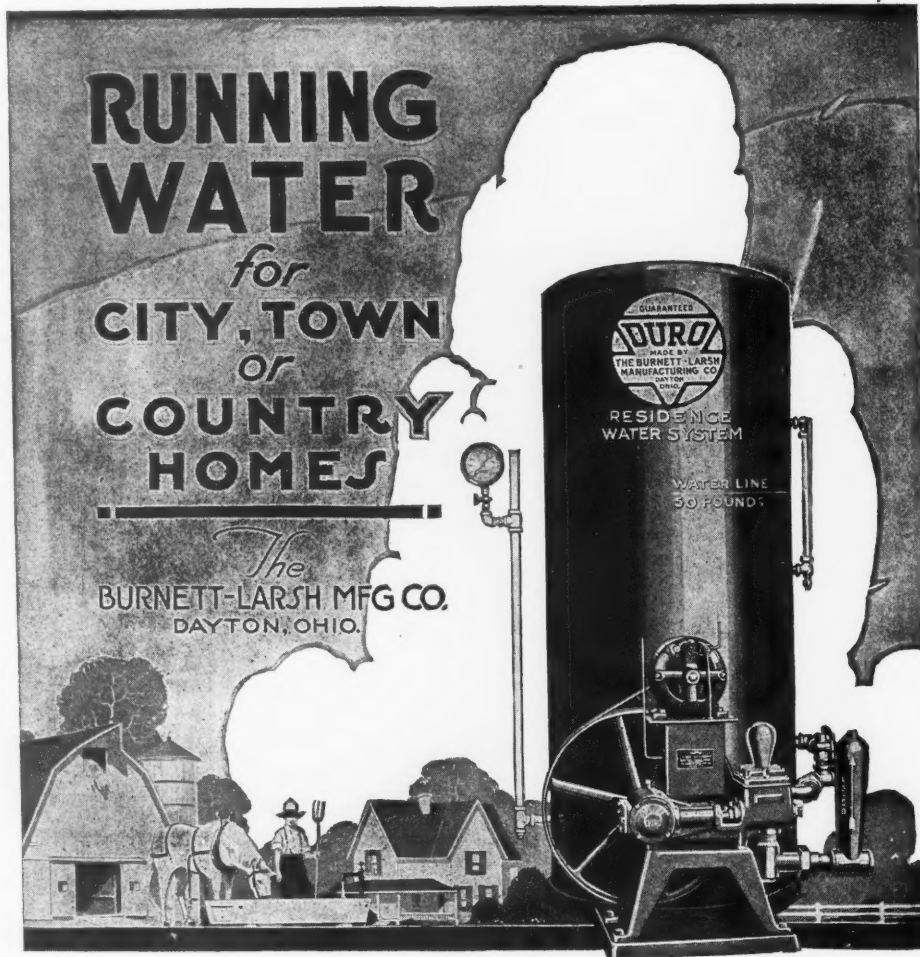
The PRIMA Co-Operative dealer sales plan will interest you. Write for it today.



**"There's
Nothing
To Get
Out Of
Whack"**

The Buckeye Churn Company
SIDNEY, OHIO





"DURO" WATER SYSTEMS

BRANCH OFFICES AND DISTRIBUTORS

New York, N. Y., The Burnett-Larsh Sales Co., Inc.,
103 Park Ave.—S. A. Brown, Mgr.; J. LeRoy
Wilson, F. E. Swan, A. H. Derby, H. Lauman,
J. Cummins, W. F. Roberts, J. L. Smith, J. F.
Thornton and A. W. Glackin.

Boston, Mass., 110 Pearl St.—F. W. Goldthwait.

Rochester, N. Y., 60 Clinton Ave., S.—L. F. Beers.

Pittsburgh, Pa., 3000 Petoskey St., N. S.—Duro
Sales Co.

Columbus, O., 348 N. High Street—Duro-Miller
Pump Co.

Greensboro, N. C., c/o Hotel Huffine.—T. J. Gal-
braith.

Bay City, Mich., Ridotto Bldg.—F. F. Hewitt.

Dayton O., 6 S. Jefferson St.—Duro Sales Co.

Indiana, R. A. Scheffel, Dayton, Ohio.

Memphis, Tenn., 256 Randolph Bldg.—Dura Sales
Co.

Miami, Fla., R. A. Box 283—Frank P. Kennedy.

Selma, Ala.—Bloch Brothers.

Oshkosh, Wis., 32 High St.—Mfr's Sales Co.

Chicago, Ill., 231 Ins. Exch. Bldg.—F. B. Kurtz,
Mgr.; J. F. Dare, H. S. Pettengill and F. H. Wicke.

Cedar Rapids, Ia., P. O. Box 854,—J. F. Weir.

St. Paul, Minn.—Crane & Ordway Co.

Minneapolis, Minn.—Roberts-Hamilton Co.

Des Moines, Ia., 723 Grand Ave.—M. C. Royer.

Wichita, Kan., P. O. Box 1057.—R. W. Knee.

Dallas, Texas, Sumpter Bldg.—J. V. Hardy.

Denver, Col., 1420 Sixteenth St.—L. E. Keene.

Logan, Utah.—Genter Sales Company.

Phoenix, Ariz.—Harris Brothers.

Seattle, Wash., 2207 Second Ave.—Farm Equip. Co.

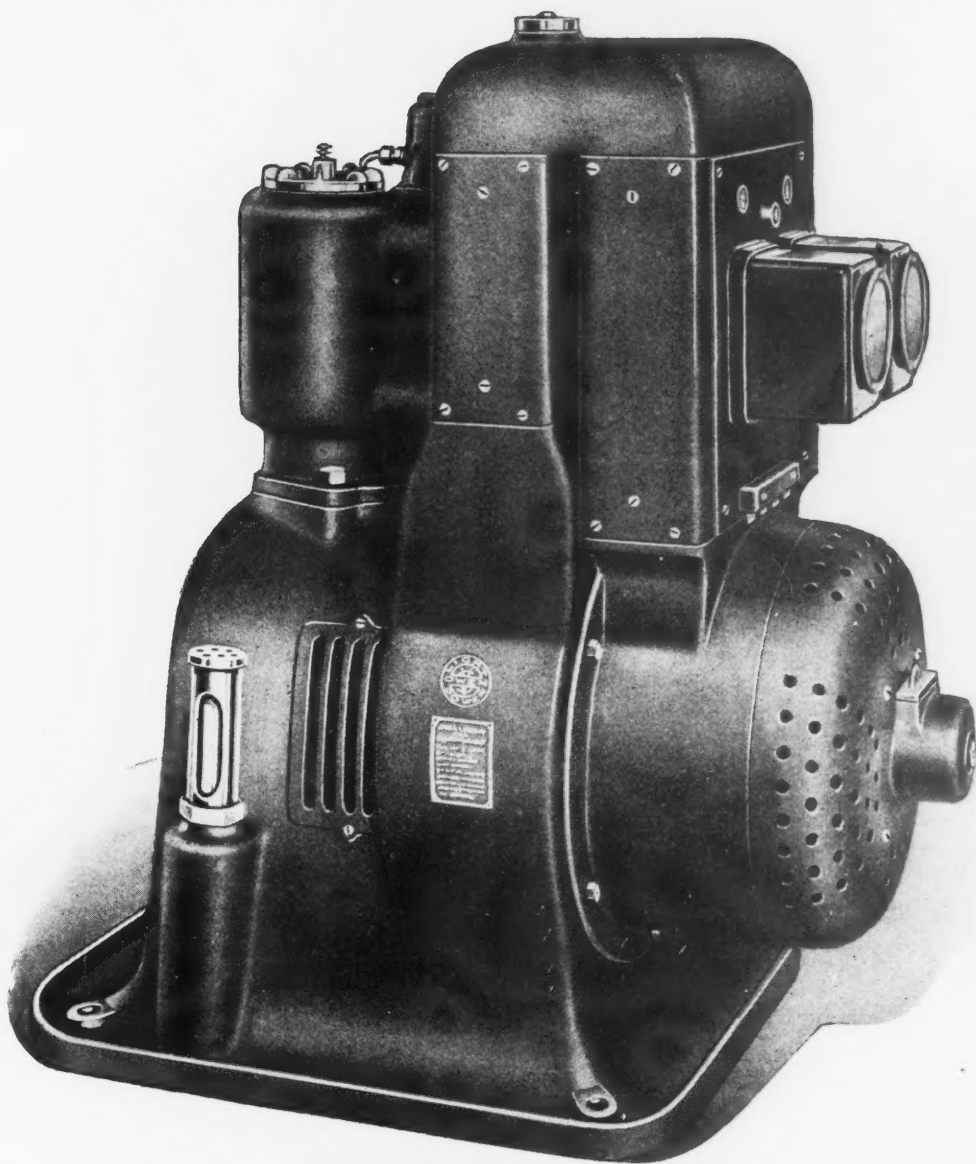
San Francisco, Cal., 70 Fremont Street—California
Hydraulic Eng. & Supply Company.

Winnipeg, Man.—John Stevens Co., Ltd.

Vancouver, B. C., 224 Abbott St.—Pumps & Power,
Ltd.

Quebec, Canada, P. O. Box 384,—C. J. Lockwell.

" it starts and stops itself "



Now! Get full information about this great money maker. Exclusive territory contracts now being negotiated for the sale of the famous,

OWEN
Light & Power
For Farm and Home

full-automatic Owen Light & Power Plant. The most advanced of all! The easiest seller! The most satisfactory! Write or wire today.

R. M. OWEN & CO.

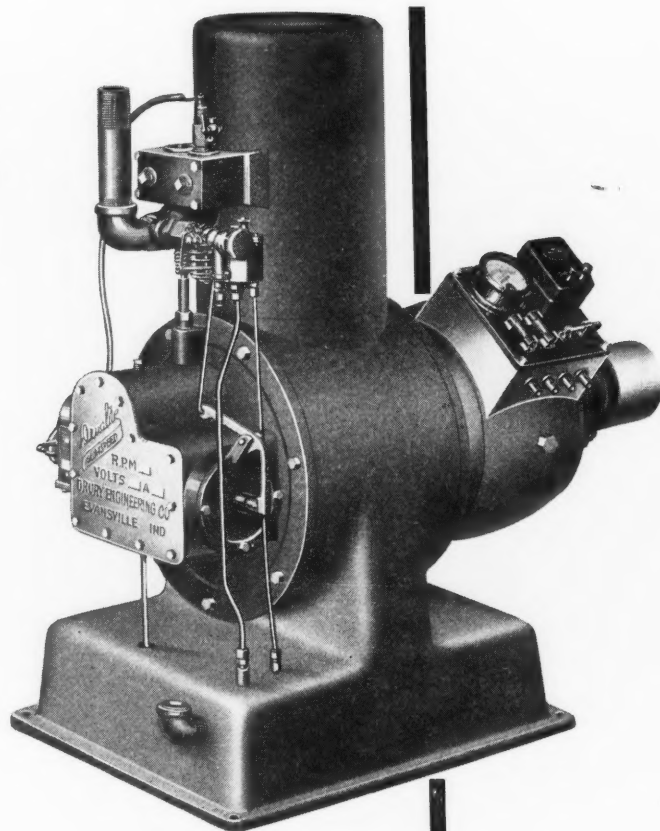
Department 25

722 SOUTH MICHIGAN AVENUE . . . CHICAGO

DRUALITE

SLOW SPEED

The Farm
Light and
Power Plant
That Makes
Good for
The Dealer



The Farmer today is a shrewd buyer, and especially in selling him a Light and Power Plant you must give him "value received."

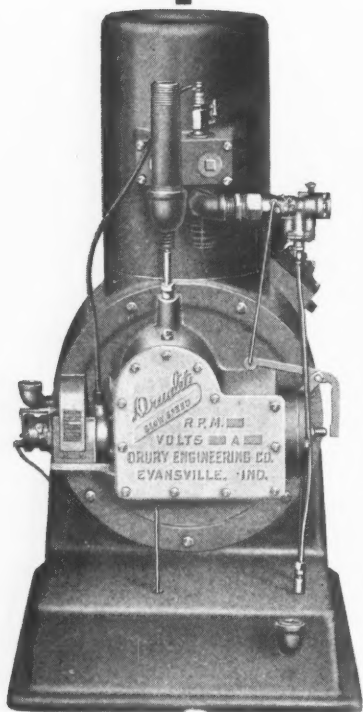
The DRUALITE Slow Speed plant is designed and built to do just that. It is built as *one complete unit*, of the very best of materials.

REMEMBER! It runs at 700 R.P.M. There is no flicker. It gives 1200 watts continuous duty, and 3 1-2 H.P. for belt purposes.

Write today for our advantageous proposition to dealers and distributors.

Some territory is still open.

Don't delay—Write or wire today.



**DRURY
ENGINEERING CO.,**

1713 First Ave.,
Evansville, Indiana

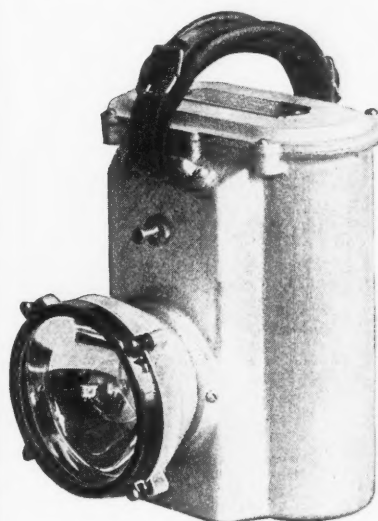
GRETHER

Hand Electric Searchlights



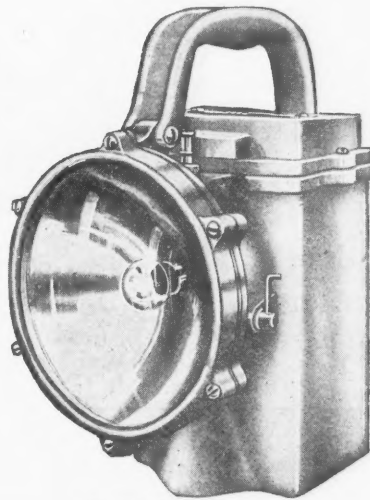
Model 6, Equipped with
Focusing Device

All Grether Searchlights are made of aluminum. The silver plated reflector will project a bright shaft of light 300 feet or more. They will stand alone, can be carried by hand, with a shoulder strap, or hung on a bracket.



Model 3

The field of sale for these lights is practically unlimited. And the service that they render will make every user a booster. They are built not only to sell, but are built up to a standard that means efficient service.

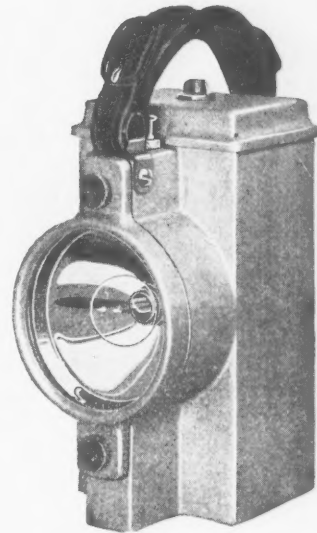


Model 10-G, Equipped
with Willard Storage Battery

Jobbers! Dealers! The opportunity for quick and multiplied turnover, with a small investment, should not be overlooked.

Look at the list of potentials—all of them users and prospective buyers.

Write today for complete details as to prices and discounts.



Model 2-G, Equipped
with Edison Storage Battery

Wherever a portable, powerful light is needed there is a place for the Grether Light as in

Garages
Factories
Railroads
Oil Refineries
Coal Mines
Explosive Plants
Gas Plants
Chemical Works
Textile Mills
Lumber Yards
Grain Elevators
Warehouses
Watchmen
Firemen
Police
Night Wrecking Crews
Railroad Signaling
Mine Officials
Sewer Work
Subway Work
Boats, Large and Small
Ship Yards
Telegraph and Telephone
Crews for Trouble
Shooting

Grether Fire Equipment Co.
Dayton, Ohio

SAFEGUARDING THE BUYER

When you get right down to the bottom of it, the very function of the Electrical Supply Jobber is the safeguard of the buyer.

If the manufacturer did not find in the Service of the Electrical Supply Jobber the most economical way of reaching the buyer he would not market his product through the Electrical Supply Jobber.

It's a highly competitive business, this merchandising of electrical supplies, and only by constant study and the application of modern methods in purchasing, warehousing and merchandising, does the Electrical Supply Jobber maintain his position as an Indispensable Factor.

ELECTRICAL SUPPLY JOBBERS
ASSOCIATION



*"An efficient Electric Range must
be infinitely more than a mere
container for electric units—"*

Mother Acorn



Electric cooking

*has been developed to its
present point of success
because—*

The highest technical electrical skill was combined with sound range building experience—an experience gained in the manufacture of ranges for over eighty years.

Electricians alone could not have accomplished it, neither could range makers, working by themselves.

Electric Ranges are perfected for all cooking operations and offered in patterns and sizes to meet the requirements of every household.

Acorn

ELECTRIC RANGES



RATHBONE, SARD & COMPANY

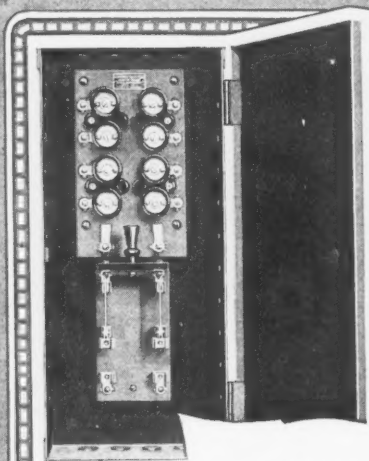
ESTABLISHED 1830

Controlled and Operated Continuously by the Same Interests
FACTORIES: ALBANY, N.Y. AURORA, ILL.

Branch Offices and Warehouses

New York	Philadelphia	Chicago
Dallas	Pittsburgh	Portland
Los Angeles	Atlanta	Milwaukee
Detroit	Oklahoma City	San Francisco
Boston		Salt Lake City

Modernize the Wiring Job—Use the



BENJAMIN-STARRETT PANEL CUT-OUT

EASIER and cheaper to install than any other form of Cut-Out mounted in a box. It is a complete unit in itself. The whole job is done with a Benjamin-Starrett Panel Cut-Out before a man working with porcelain blocks has had time to assemble his feed wires.

A complete installation consists of any standard cut-out box, a standard knife-switch of required capacity, and a Benjamin-Starrett Panel Cut-Out. All of these you can get quickly from your jobber's stock.

Quick deliveries and ease of installation save time and money. Superior appearance and increased safety features win instant approval of your customers.

We will be glad to send you further information

BENJAMIN ELECTRIC MFG. CO.

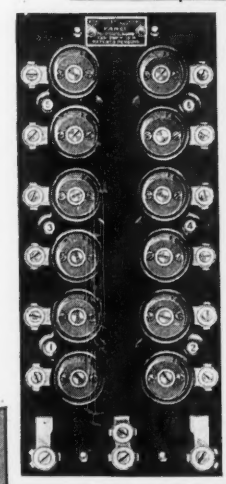
Sales and Distributing Offices:

806 West Washington Boulevard

247 West 17th Street
NEW YORK

CHICAGO

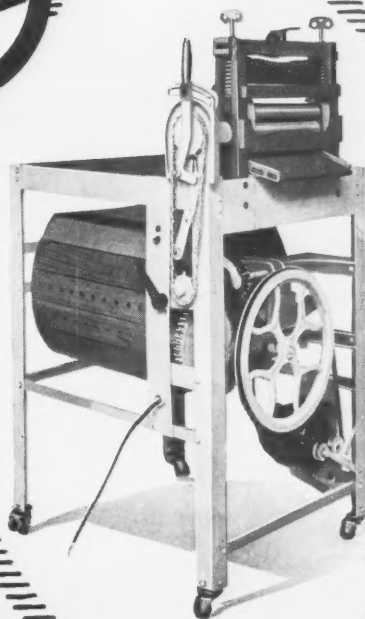
590 Howard Street
SAN FRANCISCO



BENJAMIN

Makers of Things More Useful

The FEDERAL



ELECTRIC WASHER

The FEDERAL



The 12 Big Federal Features

1. Beauty and Durability.
2. The oscillating cylinder Washing Principle.
3. Absolutely Safe—all moving parts enclosed.
4. A Real Safety Wringer Release.
5. "Three-in-One" Wringer Control.
6. Push button switch "built-in."
7. Clutch to start and stop washing.
8. Swivel roller-bearing double casters.
9. Leather belt drive—no jamming gears—protects motor.
10. Automatic belt tension adjuster.
11. Glass water gauge.
12. Oversize motor one-quarter horse-power.



—Just demonstrate the FEDERAL

No matter where the Federal Electric Washer is standing on the sales floor—if it can be seen, its beautiful design and finish immediately attracts the attention of the housewife. Your possible customer becomes interested at once and you have accomplished the first step—the important step—towards making a sale.

Then it takes but a few minutes to demonstrate the Federal and to show its many convenient and labor-saving devices. Women will immediately notice and be strongly impressed by these important and distinctive features which have been incorporated in the Federal, in order to save them time, labor and unnecessary steps.

An actual demonstration clinches the sale.

Furthermore, we have prepared and will furnish you with a complete advertising campaign, consisting of newspaper advertisements, movie slides, circulars, letters, street car cards, window displays, etc. The appeal of this advertising is irresistible—it brings prospects to your store ready to buy. All you do is demonstrate the Federal, following the simple instructions given in our Federal Sales Manual, and close the sale. We also help you finance your installment accounts.

There is a waiting market for Federal washers at your door—sell the Federal—the washer that is easy to sell and that stays sold.

Mail coupon today for full information.

FEDERAL ELECTRIC CO.

representing

Federal Sign System (Electric)

Lake and Desplaines Streets, CHICAGO

618 Mission Street
SAN FRANCISCO

627-649 W. 43rd St.
NEW YORK

Branches in All Large Cities

Just tear off and mail the coupon now!

FEDERAL ELECTRIC COMPANY, Representing Federal Sign System (Electric)
Lake and Desplaines Streets, Chicago, Illinois

Please give me in detail your Dealer's Proposition on the Federal Electric Washer.

Name _____ City _____

Street and No. _____ State _____

Name of Firm _____

(E. M. 12)

ELECTRIC WASHER



Self-Fluxing Solder

The Self-Fluxing Feature Makes it an Easy Seller

Every user of solder is anxious to get away from the fluxing bother. Here is a wire solder that automatically takes care of the fluxing. It is **KESTER ACID-CORE WIRE SOLDER** which has a core made up of a series of little pockets filled with acid flux. As solder is melted off, the nearest pocket is opened up, and a supply of flux—in just the right proportion to the amount of solder melted—flows out on the job.

Rapid Profit Maker

This solder makes profit rapidly because it sells on sight. Its self-fluxing feature makes it so superior to the ordinary solder that it sells readily at a profitable figure.

Kester Acid-Core Wire Solder

Illustration shows how **KESTER ACID-CORE WIRE SOLDER** is used.



Highly Advertised

We are advertising it extensively and creating a big demand. Many dealers are cashing in big on it—why don't you?

It is sold in one pound coils in cartons, and on one, five and ten pound spools. These convenient packages eliminate loss due to "good measure" as when sold from bulk. We also make a **ROSIN-CORE SOLDER** for small electrical connections.

Ask your supply house for it or write us direct. Mail in the coupon below for free sample.

Write for our attractive selling proposition.

Chicago Solder Company
218 No. Union Ave., Chicago

Pacific Coast Distributors:
SIERRA ELECTRIC CO.,
San Francisco, Cal.

Chicago Solder Co.,
218 No. Union Ave., Chicago.

Gentlemen: Please send me a free sample of your **KESTER ACID-CORE WIRE SOLDER**.

Name

Address

City State

Our jobber is

E. M. 12-1919

Free Sample Coupon

IF YOU COULD SEE How We Make The

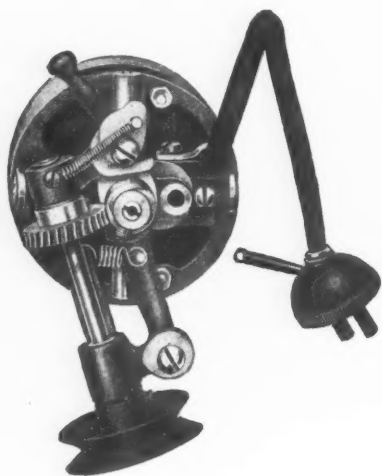
ELECTRIC SWEEPER-VAC

WITH MOTOR-DRIVEN BRUSH

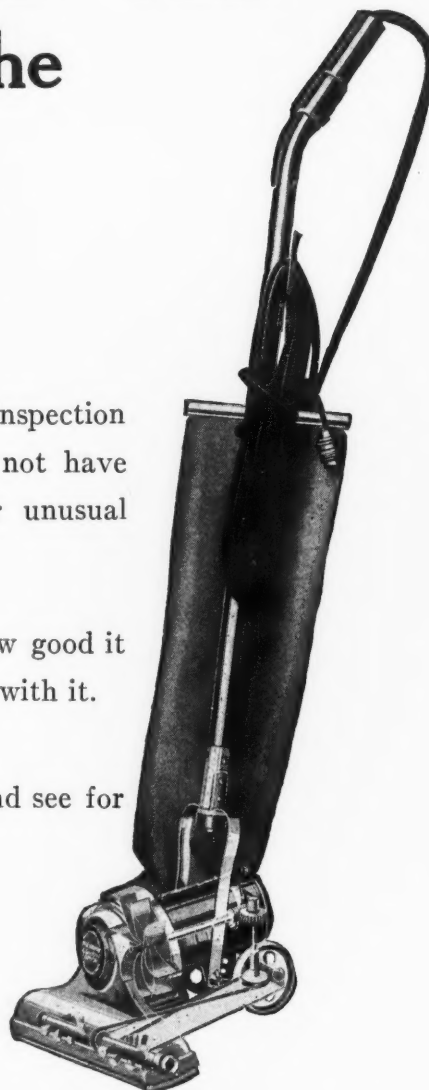
and if YOU COULD WATCH Our rigid three-fold inspection of every cleaner, you would buy it even if it did not have THAT LEVER and a score or more of its other unusual features.

You would buy it because you would know how good it must be and how free from after-troubles you can be with it.

We cordially invite you to visit the factory and see for yourself.



This is the skillful Worm Drive Mechanism showing also That LEVER



The Famous LEVER CONTROLLED WORM DRIVE System Makes the Electric Sweeper-Vac the

TWO IN ONE

Vacuum Cleaner for unexcelled service and for such smoothness in operation that you really feel that you REST WHILE YOU WORK.

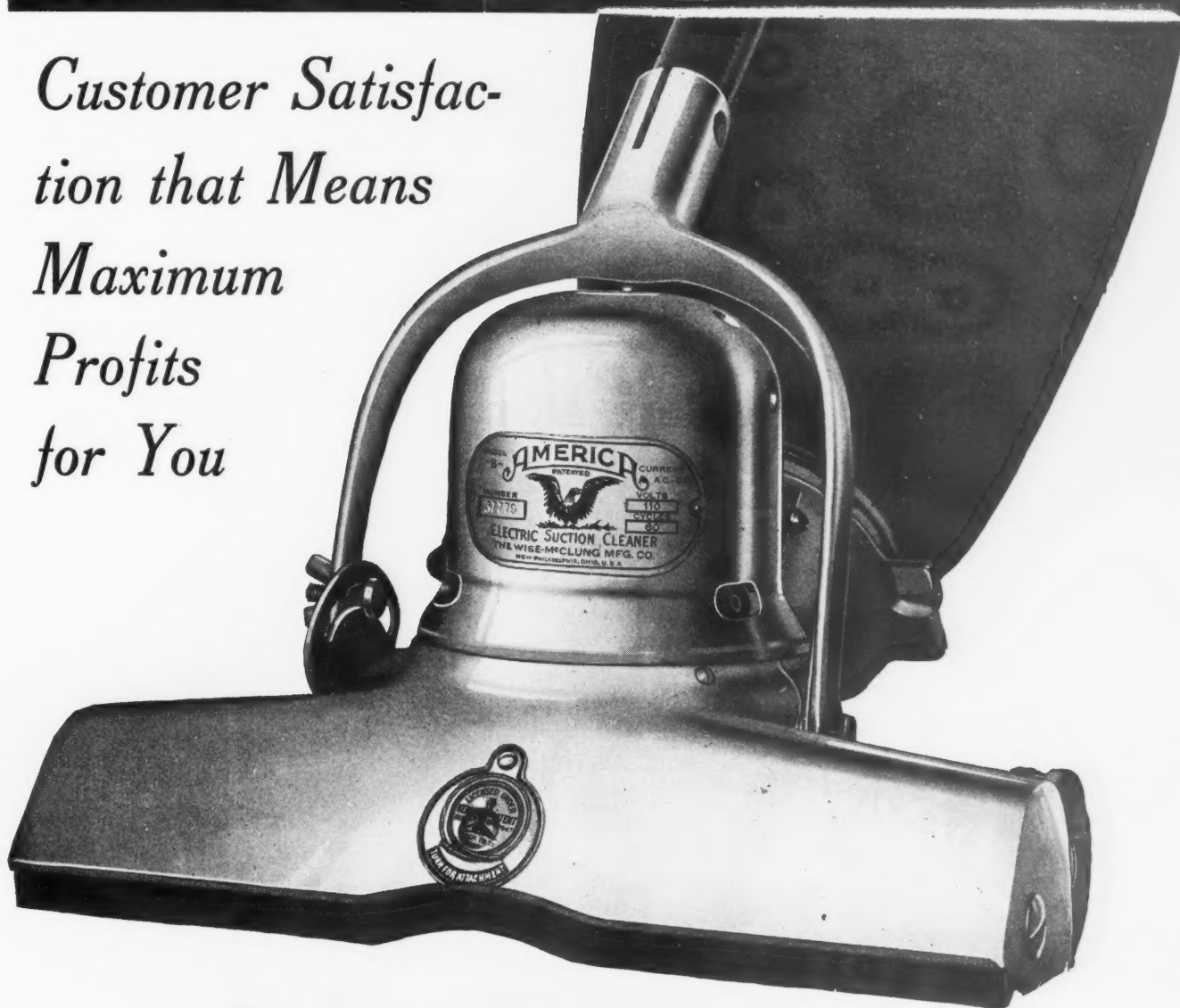
It's a pleasure to sell it.

Write for particulars, and most elaborate book ever written on Vacuum Cleaners.

PNEUVAC COMPANY

WORCESTER, MASS.

*Customer Satisfaction
that Means
Maximum
Profits
for You*



THE appreciation expressed by satisfied users of the America is a tremendous asset to the dealer.

Satisfaction sells more America cleaners for him; the kind of selling that costs him nothing—but profits him greatly.

The American suction cleaner deserves and earns the complete confidence of both dealer and customer.

It combines, mechanical perfection, with powerful suction efficiency—plus the *thorough clearing efficiency* of a revolving brush (not motor driven). And there's a minimum of servicing to do.

America dealership is an opportunity you should investigate at once.

Write us for details—or wire.

The Wise-McClung Mfg. Company
New Philadelphia, Ohio

ROYAL

QUALITY SERVICE

ELECTRIC CLEANER



Dealers Doubled Their Sale of Royal Cleaners This Year —and Their Profits, Too!

—and not a little of that increase was attributed, by them, to the *selling power* of Royal selling helps.

The Spring campaign is even more thorough in its scope—more effective and helpful in the “Dealer to Customer” selling aids.

With a cleaner of universally acknowledged superiority;

—a dominant, powerful feature in “Cleans by Air Alone!”

—and sales promotion that really promotes the dealer's business, the Royal franchise is a tremendously valuable asset to the ambitious merchant.

**Are You Selling the Best Cleaner Made?
The Real SUCTION Cleaner?**

ROYAL DISTRIBUTORS

Baltimore, Md. Walter E. Hill Co.	Johnstown, Pa. Hack Electric Co.	Pittsburgh, Pa. Gainaday Electric Store
Berlin, Pa. Groff Bros. & Bennett	Kansas City, Mo. Domestic Appliance Co.	Portland, Ore. Stubbs Electric Co.
Boston, Mass. Foster McDonald Co.	Los Angeles, Calif. W. C. Baileys	Rochester, N. Y. Brown & Pierce Co.
Cherrytree, Pa. C. A. Grumbling	Louisville, Ky. Jas. Clark, Jr., Electric Co.	Salt Lake City, Utah Capital Electric Co.
Chicago, Ill. The Eden Appliance Co. Standard Washing Machine Co.	Milwaukee, Wis. National Appliance Co.	Seattle, Wash. Fobes Supply Co.
Cleveland, Ohio George Worthington Co.	Minneapolis, Minn. Northern Electric Co.	Scranton, Pa. Fred R. Smith
Denver, Colo. Mine & Smelter Supply Co.	New York, N. Y. Northwestern Electric Equipment Co.	St. Louis, Mo. Morton Electric Co.
Detroit, Mich. Hayes Electric Company	Norfolk, Va. Woodhouse Electric Co.	Washington, D. C. Carroll Electric Co.
Duluth, Minn. Northern Electric Co.	Oakland, Calif. Creighton & Morris	Waterbury, Conn. New England Eng. Co.
Erie, Pa. Star Electric Co.	Omaha, Neb. Burgess Granden Co.	Wheeling, W. Va. Gee Electric Co.
Greensburg, Pa. Alvin Seiler	Philadelphia, Pa. Judson C. Burns Sales Co.	Williamsport, Pa. The Electric Shop

General Canadian Distributors: Montreal, Manderloh & Co.

THE P. A. GEIER COMPANY
5121 St. Clair Ave., Cleveland, Ohio

The FRANKLIN is adjustable-

A WOMAN wants a cleaner that she can depend upon. At any time, in any room, on any rug or carpet, it must clean easily and speedily and perfectly. Then the whole matter of cleaning is off her mind. There is never any trouble.

The Franklin gives this kind of never-failing satisfaction. It is adjustable. A little thumb-screw regulates the nozzle to any kind of floor covering. It operates ever at full efficiency with no re-cleaning. This is what counts with your customer.

We have sold many cleaners for many years to thousands of homes in many towns, but of them all, we have selected this machine to bear our trade-name and our guarantee. It is a perfect cleaner to use and to sell. There are many definite features of true quality that make it so, and offer great advantage to the contractor-dealer—Write us today.

THE PHILADELPHIA ELECTRIC
COMPANY SUPPLY DEPT.
132 South Eleventh Street
Philadelphia



FOUR IN ONE

Light

Efficiency
Economy

Dust-Proof
Bug-Proof



100 Per Cent Lighting in the Ginter Grocery Stores, Boston

THE first Four-In-One Lights tested in a Ginter Store demonstrated their superior lighting value and economy so thoroughly that 250 units have since been installed.

The Four-In-One is 100 per cent efficient because it is so scientifically constructed that no ray of light is lost. Perfect light distribution results from the application of the latest principles of design—no glare, no shadows, just a diffused flood of light. It is bug-proof and dust-proof, which guarantees full lighting value at all times and saves in up-keep.

Its light source is the Mazda "C" lamp, the most economical light known. The Four-In-One is the perfect light for salesrooms, offices, banks, residences.

Our style book will interest you—send for it

L. PLAUT & COMPANY 432 East 23d Street, New York City

TERRITORY DISTRIBUTORS

- | | | | |
|--|--|--|---|
| NEW ENGLAND—Pettingell-Andrews Co., Boston, Mass.
New England Engineering Co., Waterbury, Conn.
NEW YORK, N. Y.
E. B. Latham & Co.
Sibley-Pitman Electric Corp.
EASTERN NEW YORK STATE
—Havens Elec. Co., Albany, N. Y.
CENTRAL NEW YORK STATE
—Mohawk Electrical Supply Co., Syracuse, N. Y.
Wheeler-Green Electric Co., Rochester, N. Y.
WESTERN NEW YORK STATE
—Robertson Cataract Elec. Co., Buffalo, N. Y.
EASTERN PENNSYLVANIA—
F. H. Stewar Elec. Co., ones-Beach Co., Philadelphia, Pa.
Dauphin Electrical Supplies Co., Harrisburg, Pa. | WESTERN PENNSYLVANIA AND WEST VIRGINIA—Iron City Electric Co., Pittsburgh Gas & Elec. Fixture Co., Pittsburgh, Pa.
MARYLAND, VIRGINIA, NORTH & SOUTH CAROLINA
—Southern Elec. Co., Balto., Md.
GEORGIA—The Gilham-Schoen Electric Co., Inc., Atlanta
LOUISIANA & MISSISSIPPI—
Interstate Electric Co., New Orleans, La.
NEW JERSEY—Tri-City Elec. Co., Newark, N. J.
FLORIDA—Livingston, Yonge Co., Jacksonville, Fla.
OHIO—
Devere Electric Co., Cincinnati, O.
Brookins Co., Sterling-Welch Co., Cleveland, O. | OHIO—Avery & Loeb Electric Co., Columbus, O.
Wm. Hall Electric Co., Dayton, O.
TENNESSEE & KENTUCKY—
(S. of Lexington and E. of Princeton) H. J. Rueff Co., Louisville
Ky. James Supply Co., Chattanooga, Tenn.
ALABAMA—Matthews Electric Supply Co., Birmingham, Ala.
NORTH DAKOTA, MINNESOTA—Peerless Electrical Co., Minneapolis, Minn.
N. W. Elec. Equipment Co., St. Paul, Minn.
MICHIGAN—A. T. Knowlson Co., Detroit, Mich.
INDIANA, ILLINOIS, IOWA, WISCONSIN—Central Elec. Co., Chicago, Ill.
NEBRASKA—American Elec. Co., Omaha, Neb. | UTAH, IDAHO & MONTANA—
Capital Electric Co., Salt Lake City, Utah.
PACIFIC COAST STATES—
Pacific States Elec. Co., Los Angeles, San Francisco, Oakland, Portland, Seattle, Spokane.
OKLAHOMA—Oklahoma Electric Supply Co., Oklahoma City.
TEXAS—Martin Wright Electric Co., San Antonio.
MISSOURI & ARKANSAS—
Central Tel. & Elec. Co., St. Louis, Mo.
Western Chandelier Co., Kansas City, Mo.
Gross Chandelier Co., St. Louis, Mo.
CANADA—Northern Elec. Co., Montreal, Toronto, Halifax, Winnipeg, Vancouver, Calgary, Regina. |
|--|--|--|---|



YOU could be making a good profit on DENZAR right now, as so many other dealers are doing

There never was a time when people were so interested in better lighting for offices, stores, schools, factories and public buildings. Wise dealers are taking advantage of this widespread interest and are making it pay them a profit.

And there *is* a real profit in this business. Every bit of work you put in on DENZAR brings its results—helps to build up a permanent and highly profitable business for you.

You can't afford to overlook the profits you can make on DENZAR. Write now for the DENZAR catalog and details of our liberal terms to established dealers.

If you haven't tried it, you'll be surprised to find how easy it is to sell DENZAR. People who are interested in securing better illumination can see its points of superiority as soon as you explain them. It sells practically on sight.

The one fact that DENZAR provides more light, and light of a better quality, with less current, is enough to close the sale. On top of that, is its wonderful durability, its handsome appearance, the ease with which it is kept clean.

BEARDSLEE CHANDELIER MFG. CO.

Manufacturers of a Complete Line of Chandeliers for Every Lighting Requirement

223 South Jefferson Street, Chicago

If You Use ECCO WIRE ECCO Publicity Works For You

ECCO advertising in national media is planned to induce public acceptance of *ECCO* wire and other first quality materials—also to emphasize the importance of *competent* planning of installations, and competent workmanship in the execution of the plans.

There is an obvious service to the entire industry in such advertisements as the one reproduced below, which appeared recently in Saturday Evening Post, Literary Digest, Factory, System and Manufacturers Record.



The start of ECCO on a roll of wire as an electrical job indicates careful workmanship

and discriminating purchase of standard materials on the part of the contractor.

Electric Wiring

Controls the Efficiency of Every Modern Building

A GREAT modern commercial or factory building is made practical only by the electric wiring which forms a network within its walls.

Telephone service connecting distant offices, elevators, bringing top floors within a few seconds of the street, handling huge tonnage of freight ventilating systems, electric current for lighting and power, all the activities of communication, transportation and power application, without which business and manufacturing operations would be thrown into hopeless confusion, are dependent upon the perfection and continuous functioning of insulated wiring.

ECCO wire is made to meet the obligations of its important part in the world's daily routine. Scientific safeguards, highest technical skill and modern factory methods insure the quality of every foot of ECCO.

The Electric Cable Company, maker of ECCO wire, is engaged solely in the manufacture and marketing of insulated wire. There is no division of energy or responsibility. To successful specialization in production and fair dealing with the electrical industry is due the fact that today—

ECCO is everywhere a recognized standard Wire.

Entrust your electrical installations, extensions or replacements only to competent electrical contractors or engineers. Have your electrical dealer keep you informed about new electrical equipment. And ask your architect to give special attention to electrical service in all new building plans.

Electrical satisfaction and efficiency is a matter of skillful planning, competent workmanship and the use throughout of standard materials such as ECCO Insulated Wire.

ECCO Dependable Insulated WIRE

THE ELECTRIC CABLE COMPANY, 10 East 43rd Street, New York City
Maker of ECCO WIRE for Every Purpose Where Rubber Covered Wire is Used

ECCO Dependable Insulated WIRE

Rome Wire

Rome-Wire

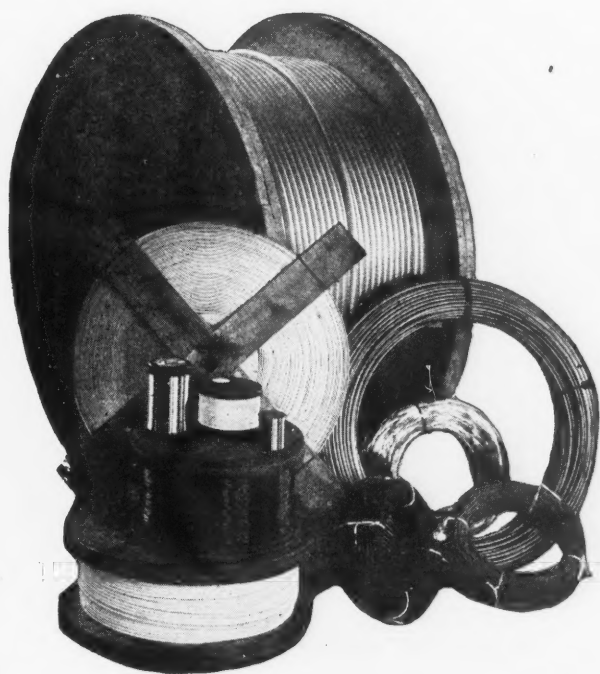
Ask Your Jobber About Rome-Wire—He Knows

EVERY jobber who handles ROME Products knows there are no "comebacks" from his customers when he sends them ROME-WIRE.

When it comes to pulling wire into conduits, fixtures and loom, you want a wire that is smooth, flexible, and not sticky, besides being thoroly tinned, accurately gauged, and of the highest quality thruout.

That's ROME—every time, and we have a wire or cable to fit every need or condition. Incidentally every foot of ROME-WIRE is backed by twenty years experience in wire-making.

You give your customer ROME SERVICE when you give him ROME-WIRE—Service—Quality and Satisfaction—three big points in building up your business.



**Rome
Wire Company**

Rome, N. Y.

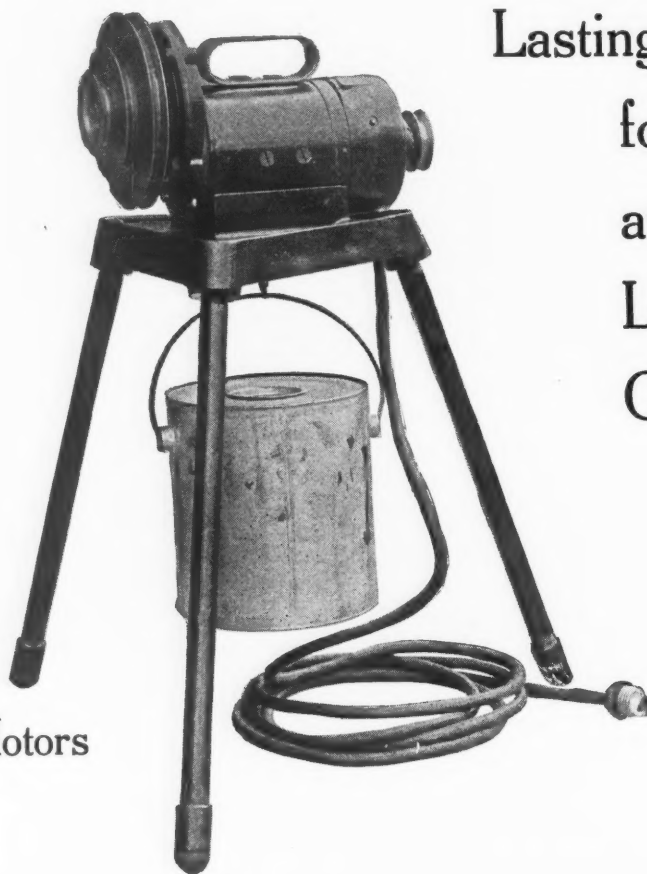
All Operations from Wire Bar to Finished Product in this Plant

Rome-Wire



The Utility Motor
That Makes
Lasting Friends
for You
and Your
Lighting
Outfit

Consumes
10 to 25%
Less Current
Than Other Motors



Great Capacity—Great Convenience

The Dyneto Utility Motor is rated at 1-4 HP., but on account of its great overload capacity it can handle any of the hundred and one odd jobs about the farm and home.

Because of the high efficiency of its winding, the liberal use of ball bearings, and the combination of pulley sizes furnished, Dyneto's capacity meets all requirements, and gives general satisfaction to its users.

Its conveniently arranged tripod base, with hook for weighting, 20-foot length of cord, provision for brace or strap, make Dyneto the handiest of all Utility motors.

The motor that saves 10 to 25 cents of every dollar's worth of your customers' current is the one to sell him if you wish to secure his lasting friendship.

WRITE FOR BULLETIN

Giving full details regarding this, the first Real Utility Motor built for service on 32-volt Farm Lighting Circuits and nothing else. Ask for terms to dealers.

DYNETO ELECTRIC CORPORATION
SYRACUSE, N. Y.

**DELTA****Lamps and Lanterns**

This big, fast selling line of flashlights, hand lamps, and lanterns is one of real profit to dealers. Backed by national advertising and a high standard of manufacture. Many exclusive features that make them popular.

4 Models of Hand Lanterns and Lamps

12 Models of Flashlights
Popular Prices—Big Profits

Write for our complete proposition.
Dealers window displays furnished free.

**DELTA****Giant Dry Batteries**

These are real giants of power. A "no come back" line of quick repeaters and big profit. Widely advertised. Made of finest materials that insure

Greater Power
Longer Shelf Life

Order samples of the Giant. Test them—compare them with others. Prove them to be real giants in energy and power.

Dealers, get in touch with this big selling line of Delta Electrical Specialties.
Write now, for particulars.

DELTA ELECTRIC COMPANY, Dept. J, Marion, Ind.

Branches at New York City, Times Bldg., Times Square, San Francisco, Rialto Bldg.

World's Standard Batteries and Electric Lamps for Hand Use, Bicycles, Buggies, Etc.

THE GIANT OF ENERGY is in all DELTA





Brings the cool of the far north right to you

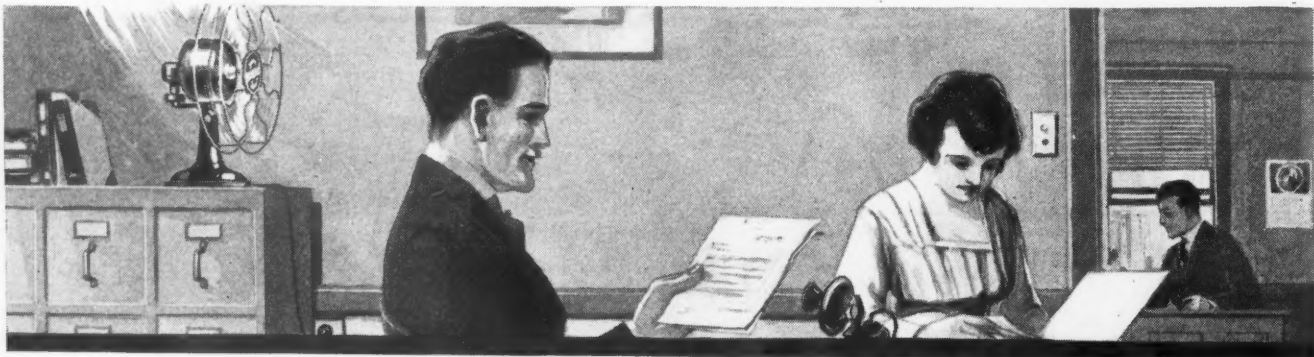
The above is the heading—and this the cut—which will be used in our full page advertisement next May in a list of national magazines to tell the great American public about the advantages in both homes and offices of;

DAYTON DURABLE FANS

Full page advertisements will be run in these magazines in the months of May, June, July and August. They will create a great, active demand for Dayton Durable Electric Fans.

Dealers who want to be prepared to cash in on the demand thus created for Dayton Durables should get in touch with us right away, as the Dealer demand, in anticipation of our campaign, is already so great that the number of others we can supply will be limited.

We have the completed campaign printed in an attractive booklet—which will be sent to Jobbers and Dealers who request it.



Dayton

FANS

THE DAYTON FAN
& MOTOR CO.
DAYTON
OHIO
USA

*Suggesting to Millions the
Appropriateness of this Christmas Gift*

SIMPLEX IRONER

"THE BEST IRONER"

The interests of every SIMPLEX dealer are kept in mind in the planning and preparation of our campaign of continuous advertising in such representative magazines as Ladies Home Journal, Good Housekeeping and Literary Digest—read by millions of good ironing machine prospects.

The advertisement, here reproduced in miniature, is a case in point. It will appear in the December publications just when thoughtful husbands and others will be considering the purchase of Christmas remembrances sure to be genuinely appreciated.

We will gladly furnish reprints of this advertisement to be displayed in your windows. Also it would be a good plan to mail one to every man on your "prospect list." How many could you use?

American Ironing Machine Co., 510-168 N. Michigan Ave., Chicago.

THIS SIMPLEX MESSAGE

will be read by many of your customers—readers of such publications as Ladies' Home Journal, Good Housekeeping and Literary Digest. If you are not familiar with the attractive Simplex Selling Plan for Dealers, write us and we will send complete information.

A Never-to-be-Forgotten Gift

CHEER and happiness—the year round—go with the Simplex ironer. Every housewife must keep her family supplied with fresh, clean clothing and linen. It's easily and economically done with the Simplex. Thoughtful husbands appreciate this and readily decide for the Simplex as the most acceptable Christmas gift.

The Simplex has the wonderful automatic feed board control. Simple and safe to operate. Piece after piece ironed so easily, so pleasantly—perfectly. Think of doing an average family's ironing in an hour! The saving in fuel, help, strength and laundry bills will pay for the Simplex ironer in a year.

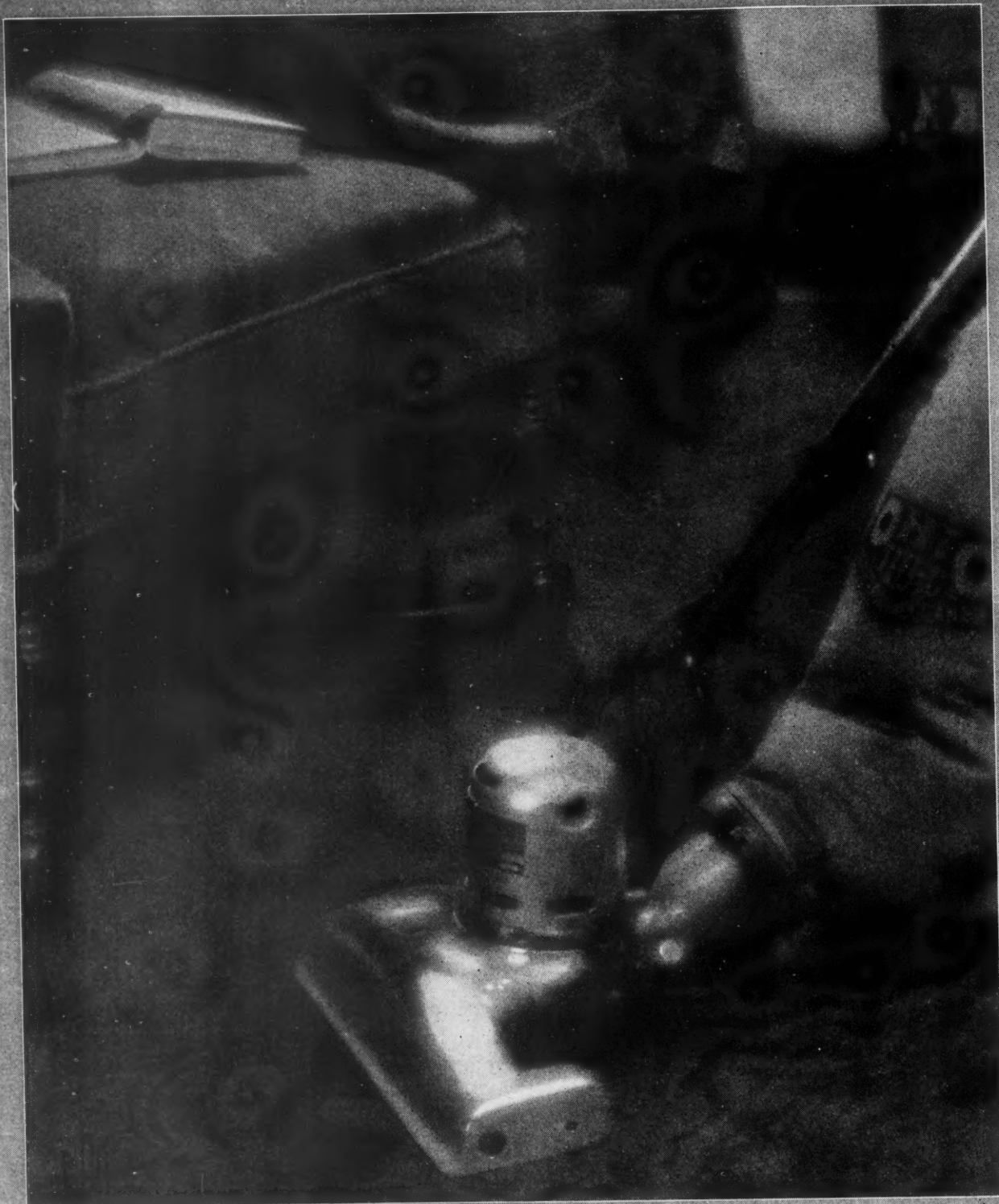
Already more than 100,000 enthusiastic women are using the Simplex ironer. Our easy payment plan makes it possible for every home to have one.

Sold for illustrated booklet—"Clean Linen is Abundance"

American Ironing Machine Company, 503 168 N. Michigan Ave., Chicago
 Eastern Sales Office: 10 N. 6th St., New York City
 Pacific Coast Sales Office: 415 Battery St., San Francisco, Cal.
 We also make ironing machines and laundry equipment for hospitals, hotels, restaurants and factories.

SIMPLEX IRONER
"THE BEST IRONER"

It is a mark of intelligent housekeeping to possess a SIMPLEX IRONER.



SINCE January first, 1100 new dealers have joined the OHIO-TUEC distributing organization that is breaking all sales records with this cleaner that
"Cleans Without Beating and Pounding"

Right now is the time to make Your plans for the new year. Our proposition will appeal to you. Write us today.

THE UNITED ELECTRIC COMPANY, CANTON, OHIO
Canadian Plant, Toronto, Ontario

Here is a Big Sales Opportunity

The Hubbell Standard Attachment Plug No. 5467

Your customers will see the advantages of a plug that

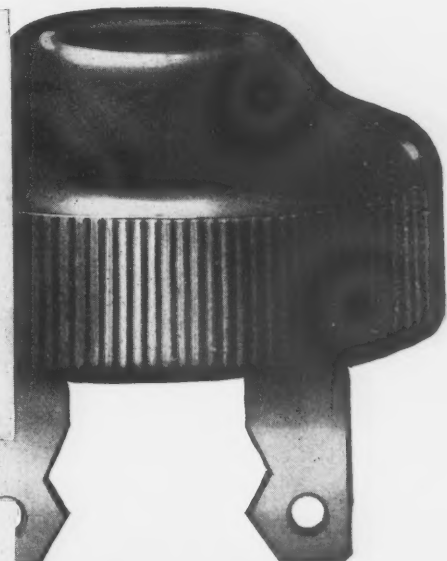
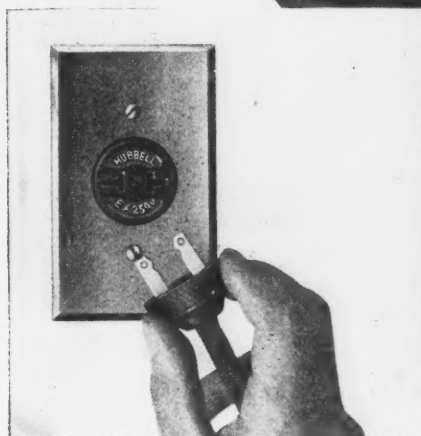
- (1) Screws into any light socket
- (2) Plugs into any standard Flush Receptacle
- (3) Fits any standard Current Tap

And you'll have the satisfaction of knowing that they will come back for more.

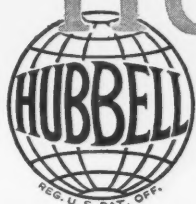
Because the Hubbell Attachment Plug No. 5467 is made as well as we know how. The body is of hard, black, heat-resisting composition, the contact points are of brass or copper, and the blades of the cap enter individual arcing chambers, which prevent short-circuiting or shock.

You will find the Hubbell Catalog valuable because it will give you full information of the Hubbell Line of Electrical Specialties: Flush Receptacles, Reflectors, Lamp Guards, Current Taps, Toggle Switches etc.

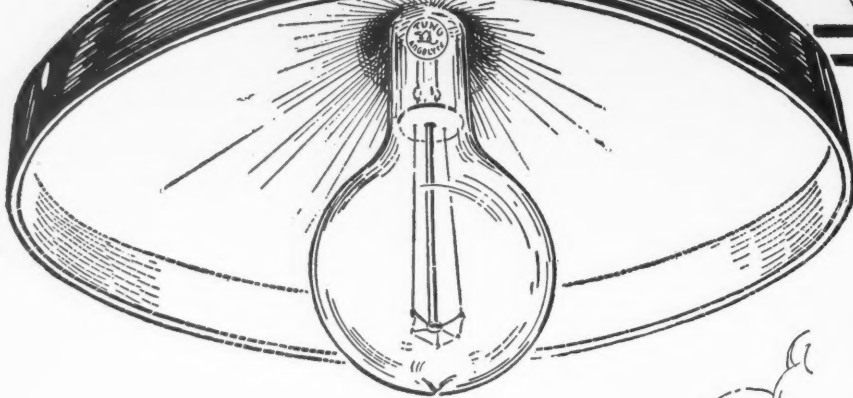
We have a copy for you.
Shall we send it?



HARVEY HUBBELL INC.
ELECTRICAL SPECIALTIES
 BRIDGEPORT CONN., U.S.A.



TUNG-SOL LAMPS



SECURE for yourself a larger share of store, office and industrial lamp sales.

Go after this business with the Tung-Sol **ARGOLYTE** (gas filled). Here is a lamp that will assure your customers full satisfaction and offers you, the seller, a wider margin of profit.

Keep an eye, also, on the big demand for home-lighting lamps. Tung-Sol Vacuum types are made for every standard use.

The advantages of concentrating on Tung-Sol are:

Completeness of the line under a uniform trade mark; freedom from annoying sales restrictions; wider margin of profit.

Tung-Sol Lamps of all types are guaranteed for an average life of 1,000 burning hours.

**INDEPENDENT LAMP
& WIRE CO., Inc.**

1737 Broadway NEW YORK

B 7.



100 BlueBirds a Month by a Small Hardware Dealer

Wherever BlueBirds are sold, they are sold in far greater numbers than had ever before been thought possible for such a product. This is not merely due to BlueBird's superiority, or to the tremendous advertising back of BlueBird, but to the organized selling methods provided for the dealer.

An ordinary hardware store on the outskirts of a city is doing a business of approximately \$15,000 a month in BlueBirds without any previous experience in appliance selling, by merely following the BlueBird selling plans. The sale of more than ten machines a month by this dealer was thought an impossibility when he started three months ago, but now his BlueBird business amounts to about 100 machines a month.

Larger Stores Selling \$50,000 to \$100,000 per Month

Larger stores in larger cities are selling BlueBirds at the rate of from \$25,000 to \$100,000 a month.

Six months ago there was not a retailer of BlueBirds in America. Today hundreds of stores from California to the Atlantic Coast have BlueBird selling records that are incredible to those who have not learned of the underlying causes.

In the cities the BlueBird plan has brought to some of the greatest department stores the realization, from actual selling results, that household appliances are by far their biggest field for home business.

New Retailing Franchises Now Being Assigned

The value of the BlueBird franchise has no counterpart in merchandising today. The assignment of this franchise in most of the larger towns and cities in the United States is now up for consideration. Naturally, only stores of size and caliber can qualify for such a proposition.

Write, wire or phone at once for full particulars.

BlueBird Appliance Co., St. Louis, U. S. A.

Branches: Chicago, New York, Boston



Giving Linens a More Useful Life

If the happiness of washing in the BlueBird way consisted only of its unusual savings of money and time, the household linens alone would not be leading so many women to BlueBird.

At present good table linens are used sparingly in many homes to save the expensive wear of ordinary methods of laundering.

In BlueBird homes, good linens are used frequently because the smooth copper interior of BlueBird—free from holes, slats, and pegs—washes them with no more wear than plunging them in soapy water can cause.

Most women find this so hard to believe that BlueBird dealers everywhere are constantly proving it by actually washing deli-

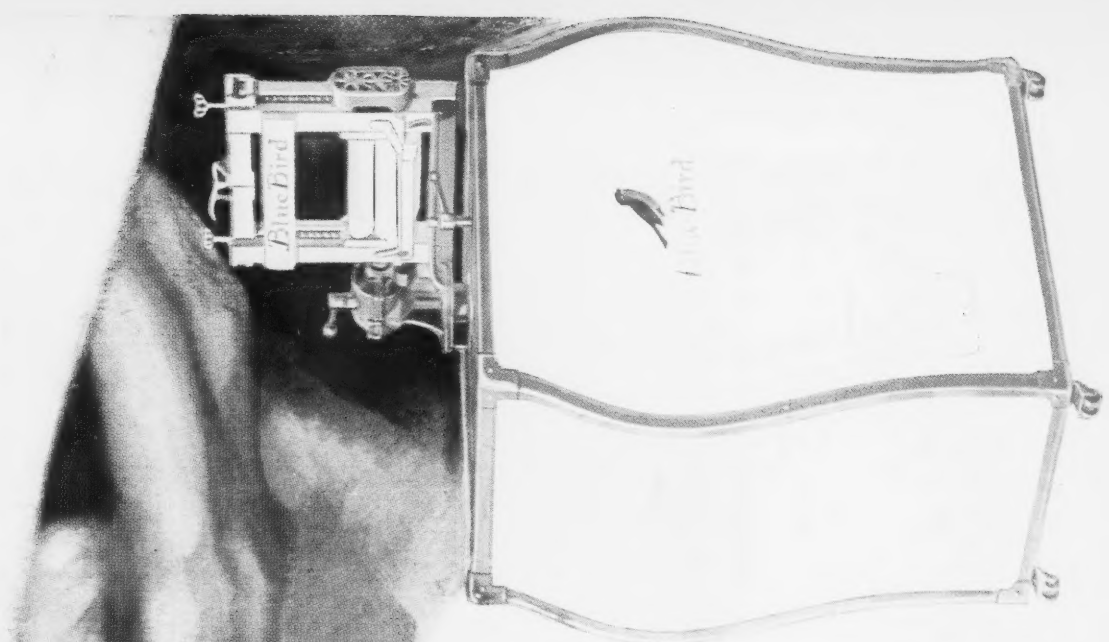
cate things, like crêpe waists, to show how wearless the BlueBird way is, and thick things like blankets and linens to show how thorough it is.

Ask your dealer to show you—ask him about the convenient way in which BlueBird can be bought—and ask us to send you the BlueBird Book.

BlueBird Appliance Co.
St. Louis, U. S. A.

BlueBird

ELECTRIC CLOTHES WASHER



This advertisement, which appears in the February issue of the Ladies' Home Journal, is illustrative of the dominant color display which is a distinguishing feature of all BlueBird advertising.



THE BlueBird policy of using full pages, always in colors, does not stop with the use of a few powerful magazines.

For months, two-color page advertisements have been appearing every four weeks in the Saturday Evening Post. Every month a four-color page appears in the Ladies' Home Journal.

Beginning with March, four color pages will also appear in the Woman's Home Companion.

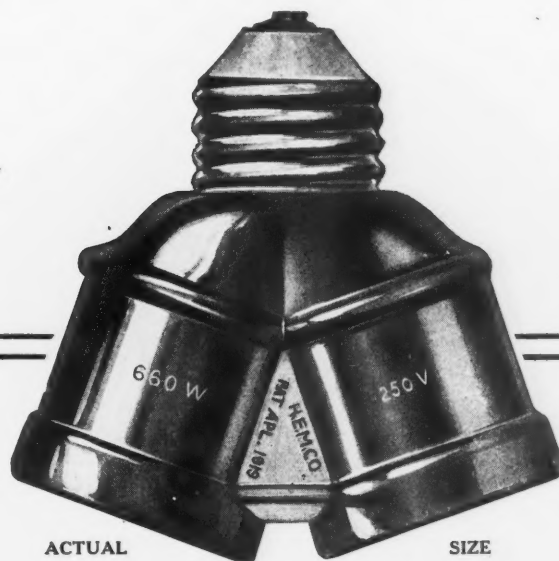
Beginning with April, there will be a four-color full-page campaign in the Delineator, the Designer, and the Woman's Magazine.

This unequalled color schedule is, of course, merely the foundation of the BlueBird advertising.

Newspaper campaigns, employing large units and frequent insertions, serve to give every holder of a BlueBird franchise the full benefit of all BlueBird advertising.

BlueBird Appliance Co., St. Louis, U. S. A.

Branches: Chicago, New York, Boston



Hemco TWIN-LITE Means That Extra Profit

The increasing use of household appliances and labor-saving devices means ever-increasing prosperity to the Electrical Dealer.

But when selling these appliances, why not get that *extra profit* by adding to each sale, one or more TWIN-LITE Plugs. In fact, a sale is incomplete without a TWIN-LITE.

The outstanding quality of the TWIN-LITE makes it a ready seller. It is unbreakable, being made of one-piece molded Bakelite.

With the TWIN-LITE, go Dealers helps and display cards, which boost sales.

Get connected with this ready seller, which will mean good profits with quick turnover and small investment.

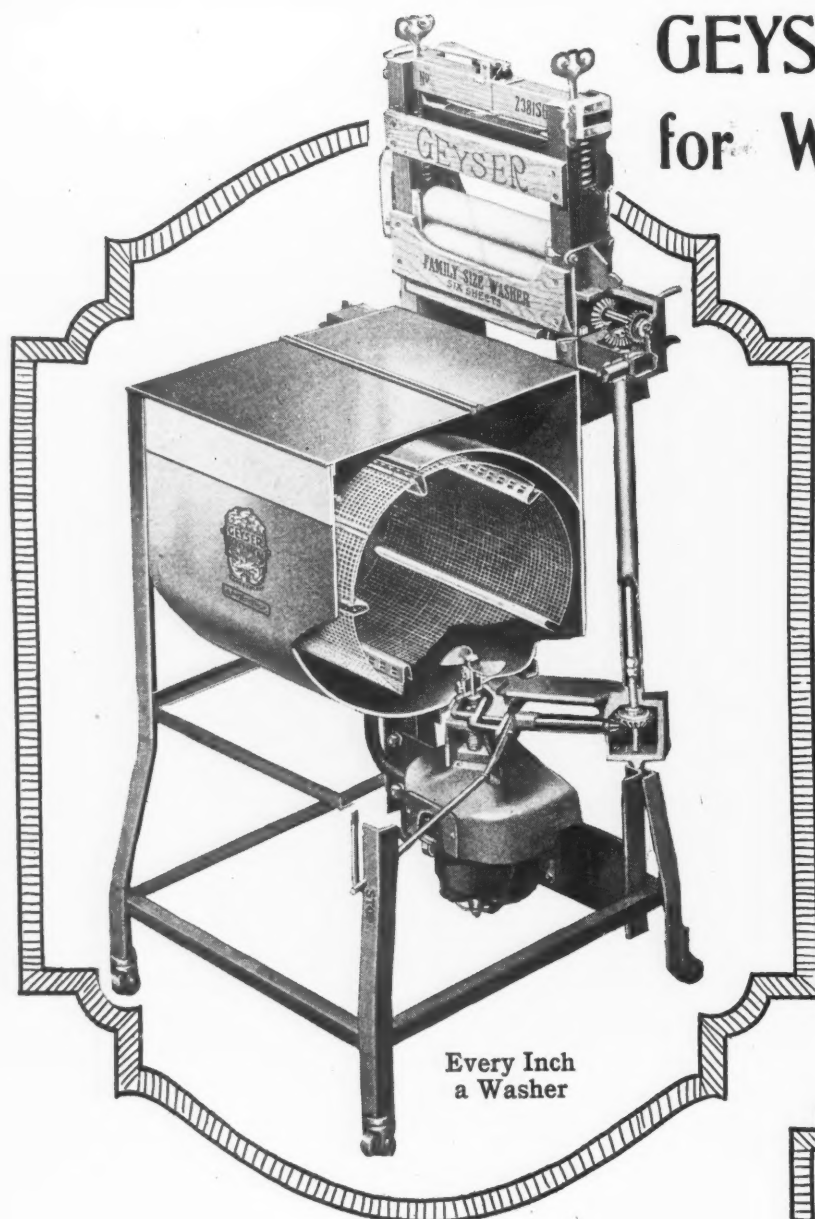
Order from your Jobber, or direct.

GEORGE RICHARDS & CO.

557 West Monroe St., Chicago

Eastern Sales Manager:
R. B. Corey Company
39 Cortland St., New York

Pacific Coast Sales Manager:
Geo. A. Gray Co.
589 Mission St., San Francisco



Every Inch
a Washer

GEYSER--The Synonym for Washer Satisfaction

The Geyser washing principle means satisfied customers. The *double* washing action of the Geyser insures thorough cleaning with *no clothes wear*. A high-speed propeller in the bottom of the tank *forces* hot soapy suds through the clothes, which are contained in a constantly revolving cylinder.

The water is *drawn back* through the clothes by suction.

This principle of washing enables the entire tank and cylinder to be used; no waste space here. That's why the Geyser is the most compact washer built. The most quiet running, too.

These are some of the things that make every user of a Geyser a staunch friend of the dealer and a constant Geyser Booster. This consumer good will in turn mean big sales and big profits for every dealer who handles this washer.

Then, too, a Geyser sold *stays* sold. It is not necessary for Geyser Dealers to carry spare parts in stock, nor are profits eaten up by constant calls for service and repairs.

Write today for the GEYSER Sales Plan.

Get in line right now for the big profits that are going to Geyser dealers. Business is good—profits are sure—so act at once and get your share. Sit down now and write for details of our co-operative dealer proposition.

Geyser Electric Co.

321-323 N. Sheldon St., Chicago

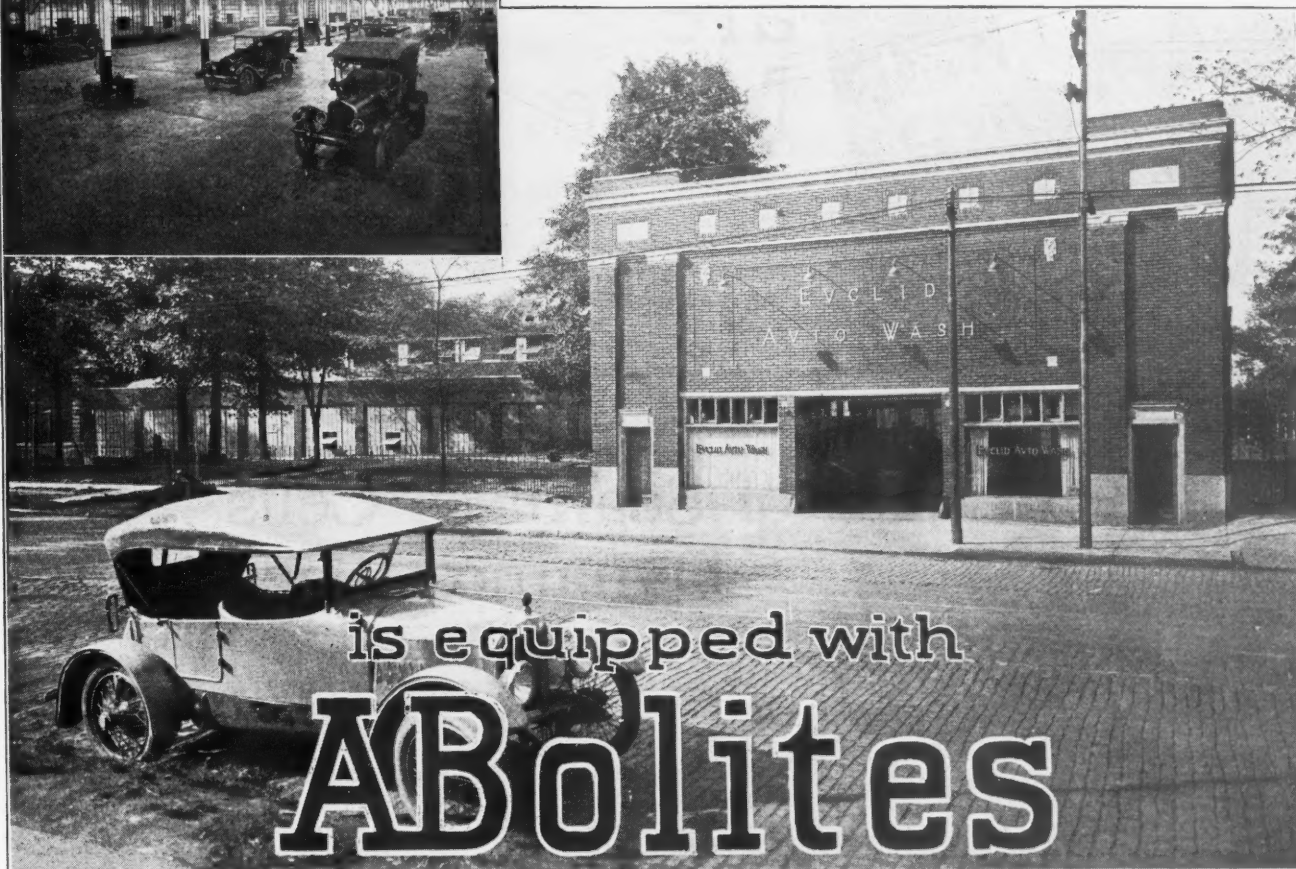
Points of Geyser Superiority Use them to boost sales

- (1) Unique washing principle. Water driven through clothes by propeller.
- (2) Compactness and light weight. All tank and cylinder space utilized.
- (3) Few moving parts. Quiet in operation.
- (4) Absolute safety of operation. All moving parts inclosed.
- (5) Metal cylinder easily raised from hot water. Clothes removed without scalding hands.
- (6) No bolts or rivets. All parts electrically welded.
- (7) All water exposed parts copper-nickel plated—easily cleaned and durable.
- (8) Reversible electric wringer swings three directions—entire washing and wringing process done without moving washer.

Geyser

"The World's Most Efficient Washer"

The Largest Auto Laundry in the United States



The Euclid Auto Wash at Cleveland has made a science of car washing.

This new plant contains 24,926 sq. ft. of floor space. They wash and polish a car in 20 minutes, while you wait. An all-day, all-night service is maintained. They have made spick and span as high as 308 cars in a single day.

ABOLITES have made such service possible. 144 units are installed, including both the RLM Standard Dome and Diagonal Types.

Let us tell you about ABolites, and their application to your lighting problems. Our engineers will plan your lighting or suggest improvements on your present system.

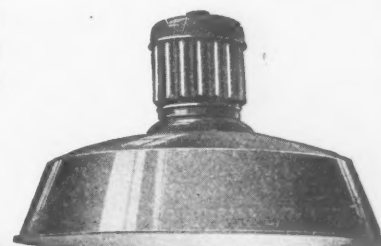


Send for the new ABolite catalog

ADAMS-BAGNALL ELECTRIC CO.
Cleveland, Ohio

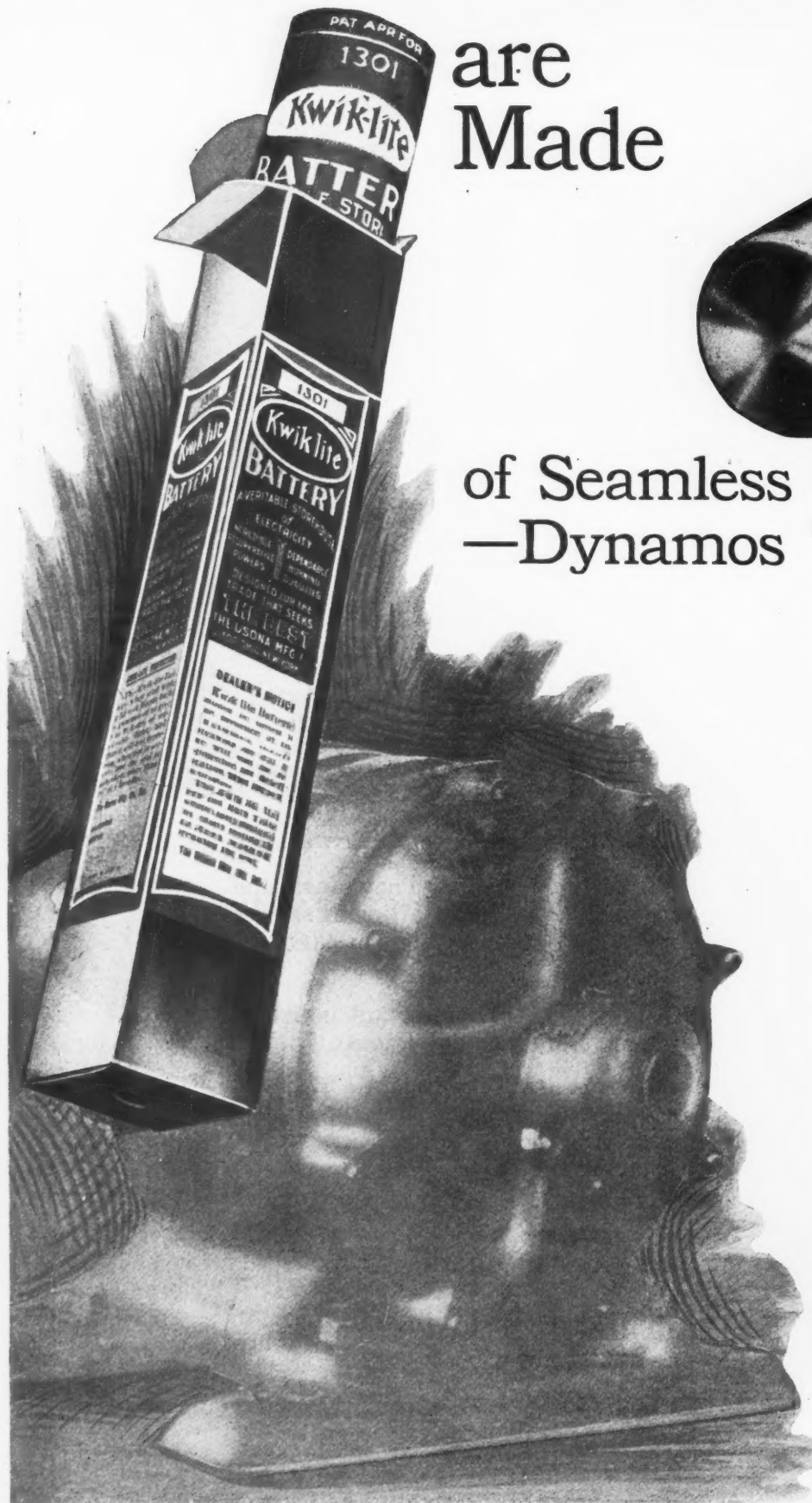


12" Diagonal

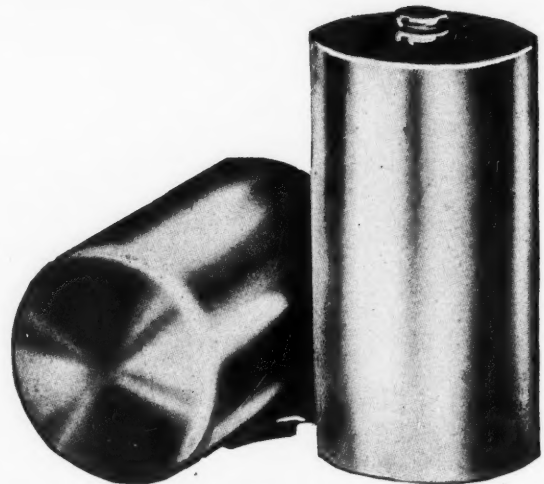


RLM Standard Dome
ABolite

Kwik-lite Batteries



are
Made



of Seamless Cells no solder
no seams
—Dynos **Themselves**

The power from the central station is only as good as the dynamo. A flashlight is only as good as its battery. And the **Kwiklite** Seamless Cell makes **Kwiklite** unquestionably the best flashlight for your customers—and for you.

This remarkable battery will give 25% more service than ordinary soldered batteries! It has a longer shelf and burning life than any flashlight battery on the market. Seamless Cell batteries are exclusive with **Kwiklite** (Patented 6-14-19).

The Seamless Cell is just one of the many advantages of **Kwiklite** the "Quality Flashlight"—features that mean *sales* for you and *service* for the customer. It has telescopic construction, self-locking switch, etc. And the line is complete in every way.

Our National Advertising, plus our attractive and effective Sales Helps—backed by **Kwiklite** Quality—form a combination that will bring the biggest and best flashlight business to your store. Write for the special **Kwiklite** proposition—now!

USONA MFG. CO.

1 Hudson St.

NEW YORK CITY

85 Second St.
San Francisco

309 S. St. Clair St.
Toledo, Ohio

"H & H" SWITCHES

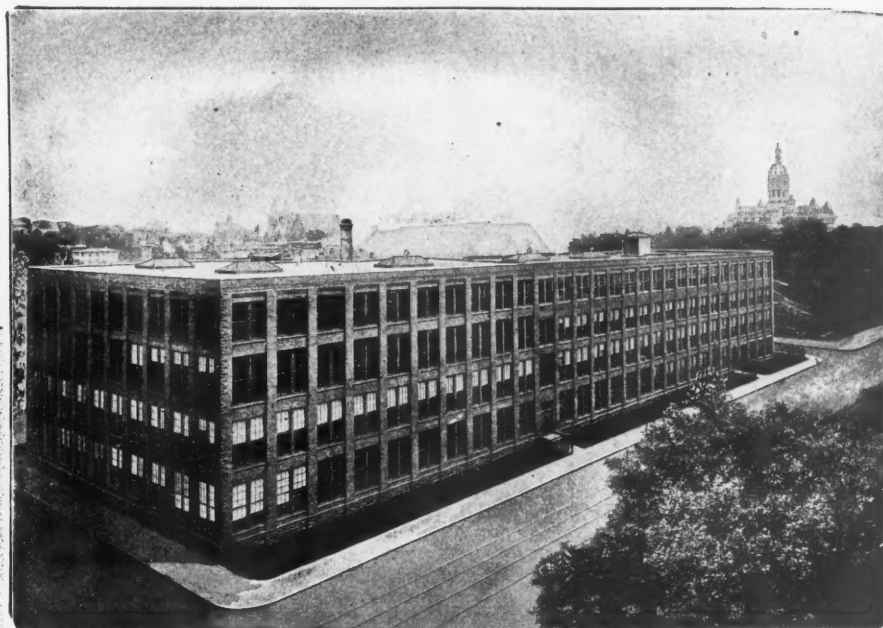
THE Hart & Hegeman Manufacturing Company of Hartford, Connecticut—whose factory is reproduced below—enjoys the reputation of building switches that are known in the trade as "Old Reliable H & H"—switches of utmost dependability

—a reputation gained through twenty-nine years of service to the Electrical Industry and to the Public.

Electrical Contractors, Builders, Architects and Wiremen the country over—knowing the quality of "H & H" Switches—render the best service to their clients and customers by making "H & H" the standard switch for every job.

The "H & H" Catalog is a mine of information on switches. Write for a copy.

THE HART & HEGEMAN MFG. CO.
Hartford, Conn.



———“Easiest To Operate!”———

The KEYSTONE IRONER



AT last an ironing machine that *actually* does away with drudgery from ironing—that *actually* turns “sad ironing day” into “glad ironing day.”

In this new KEYSTONE ironer, the electric motor does the work. Simply a slight pressure of the foot to start the ironing process; simply another pressure of the foot to stop.

Ironing machine dealers who have seen it pronounce it a wonder. They say it is the ironing machine the housewife wants with all her heart. They predict the greatest sale for it in the history of the ironing machine business.

Putting the Work on the Motor Instead of the Operator is the Happy Idea of the Keystone

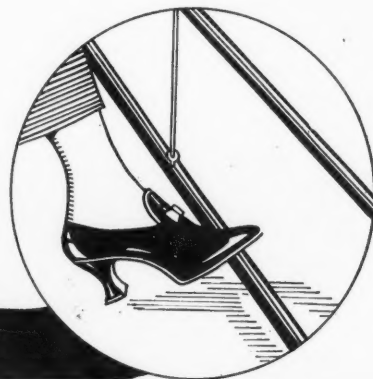
Note the position of the young lady's foot in the illustration. When she is ready to start, she simply presses on the foot-pedal. This releases the clutch and the motor takes up the work, moving the roll into contact with the ironing shoe and, simultaneously, revolving it for the ironing process. When she is ready to stop, she again steps on the foot-pedal, which releases the roll, moves it backward and stops it automatically. The shoe is stationary.

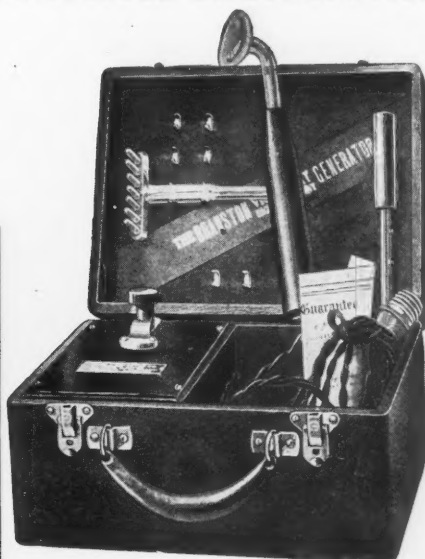
The KEYSTONE is the ONLY machine of this principle on the market. It is in a class by itself. It is the ironing machine “easiest to operate,” easiest to sell, easiest to build good will.

For further particulars, write the
KEYSTONE IRONING MACHINE CO.

Pittsburgh, Pennsylvania

EASIEST TO OPERATE





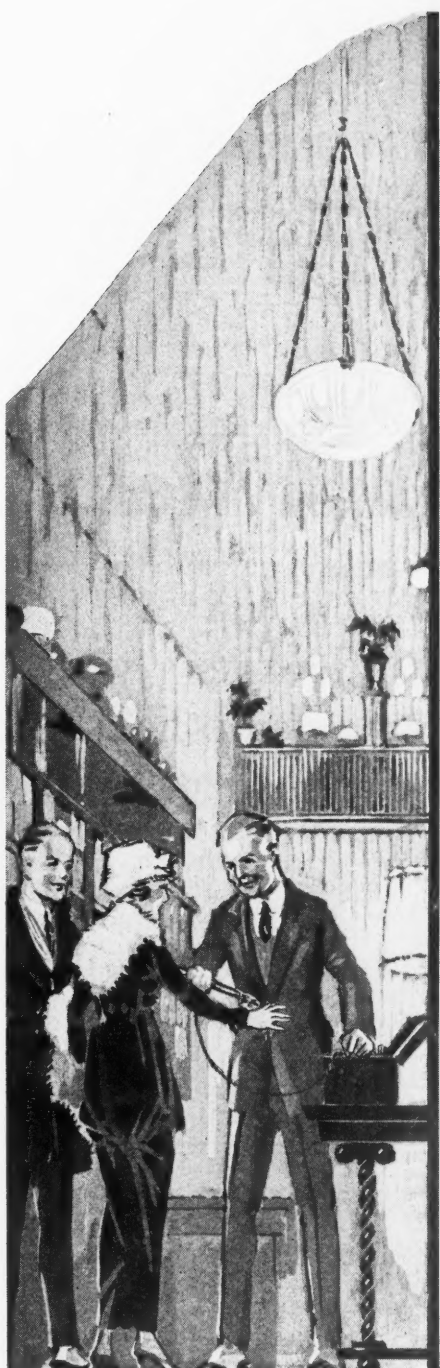
BRANSTON Violet Ray Generators give electrical dealers a line of electrical apparatus that can be merchandised on the same basis as any other high grade electrical appliance. Their great healing and health giving properties can easily be demonstrated and will prove themselves appealing to your customers. Branston Violet Ray Generators are practical, reliable and absolutely safe.

Our policy is to sell through and work with the dealer to the point that we do not feel that a sale is complete until the purchaser is absolutely satisfied. We invite inquiries from retailers who recognize the opportunity that Branston Violet Ray Generators represent.

CHAS. A. BRANSTON CO.

41-45 Ellicott St.,
BUFFALO, N. Y.

Canadian Factory:
355 Yonge St., Toronto
British Office: London



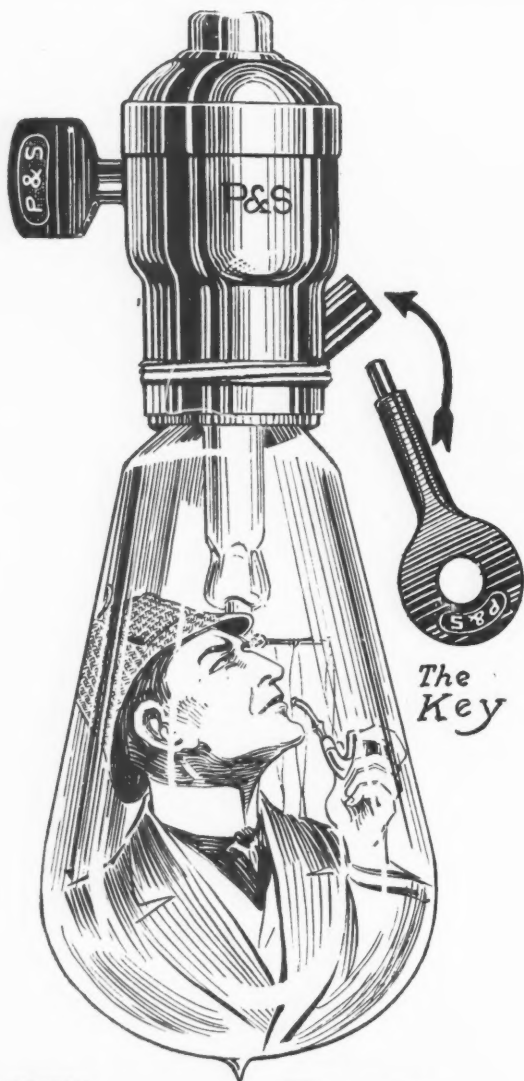
BRANSTON

VIOLET RAY

HIGH FREQUENCY GENERATORS

PRODUCTION

Production must be increased in industrial plants—here Dependable Light is an Essential and **SHURLOK** Sockets are ready to make essential light permanent.



Shurlok

The Socket that Locks
**"Keeps the Lamp
 on the Job"**

You Must Help

and with the aid of **SHURLOK** Sockets you can guarantee lamp-light--to the end that spoilage and accidents are prevented. It is your duty to prevent spoilage and accidents in your plant.

Pass & Seymour, Inc.

Solvay, N. Y., U. S. A.

New York Boston Philadelphia Chicago
 San Francisco

Name

City

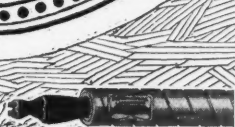
State

Send

us the NEW FOLDER on Shurlok Sockets

USE THE COUPON

NATIONAL PRODUCTS



FLEXSTEEL

Distinctive flat surface. Easy to fish, cut and strip. Ideal for wiring either old or new buildings. A complete line of improved fittings. Write for Bulletin 201



SHERARDIZED



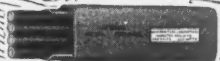
ECONOMY BLACK ENAMELED

SHERARDUCT

The Rigid Steel Conduit with both surfaces Sherardized and Enameled. ECONOMY Black Enameled Conduit. There's none better. Write for Bulletin 50



No 222



No 333

"National" METAL MOLDINGS

For two, three and four wire surface wiring. Lowest installation cost of any metal wiring system. Write for Bulletin 101



FLEXTUBE

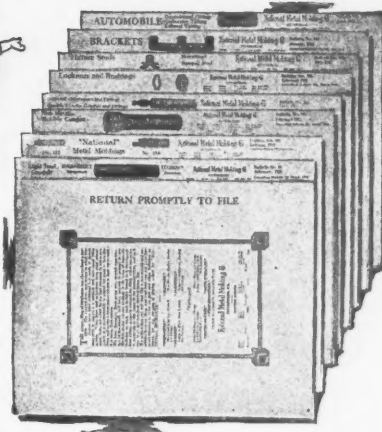
Interwoven — Seamless — Non-Collapsible. Inseparable and Double Compound. Easy to fish and every foot of every coil can be used. Write for Bulletin 151

For Your Files



Complete data on Electrical Conduits and Fittings

A separate bulletin on each of our various lines, each bound in a standard correspondence folder, suitably indexed for convenient filing, either according to the name of the manufacturer or the materials listed. A system which permits the filing of correspondence, quotations, etc., in the folder listing the materials to which such may refer.



Any or all of the bulletins listed will be sent promptly on request

National Metal Molding Co

1105 Fulton Building, Pittsburgh, Pa.

Atlanta
BostonBuffalo
Buenos AiresChicago
DallasDenver
DetroitHavana
Los Angeles
ManilaNew York
ParisPhiladelphia
PortlandSalt Lake City
San FranciscoSeattle
St. Louis

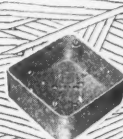
CANADIAN DISTRIBUTORS: CANADIAN GENERAL ELECTRIC CO., LIMITED

419



"National" FIXTURE STUDS

Sherardized Stamped Steel. Hollow Stems. Stronger, and yet lighter, than any other stud on the market. Write for Bulletin 400



"National" Outlet Boxes and Covers

A box for every purpose and a purpose for every box. Furnished in Sherardized or Black Enameled Finish. Write for Bulletin 250



"National" Locknuts and Bushings

Threads sharp, clean and true. "National" quality products. Exclusive self-cleaning feature in the bushings. Write for Bulletin 350



"National" BRACKETS

Complete with insulators. Sherardized Bases. Wires run straight through. No Tie-Wires necessary. Write for Bulletin 602

"D & W" Standard Fuses

Look
for the
"D & W"
Trade-Mark
it is
insurance
against
trouble

Not Merely "Enclosed" Fuses
They Are 100%
PROTECTIVE FUSES



Approved and
Regularly
Inspected
by the
Underwriters'
Laboratories

The fuses for any electrical installation is one of the essential features which is often given too little attention.

Selection of a fuse best adapted to the demands of the circuit it is to protect is an important matter if the best results are to be obtained.

In the design and manufacture of "D & W" Fuses every detail in the process is given careful attention, uniformity and accuracy have always been distinctive features during a quarter of a century of fuse making.

When you consider the replacement value of the equipment on your circuits and compare it to the cost of protecting it with "D & W" Fuses you will appreciate the ultimate saving in buying 100% quality fuses.



D & W Fuse Company
Providence R.I.
U.S.A.





Here You Are At Last—The Flashlight Made ABSOLUTELY DEPENDABLE

Make-UR-Own Batteries for Flashlights are the result of a real necessity—they give your customer 100% efficiency—entirely remove your battery "griefs" and give you a clean profit.

Lightens and Brightens Your Customers X-mas Buying

There isn't a member of any family—from Dad down to little Dick—that won't be more than pleased with a Make-UR-Own Battery Outfit on Christmas morning.

It has more real uses and more real merit than anything you could think of—and besides it is out of the ordinary. Make-UR-Own Batteries are for flashlights. With this outfit, your customer can make his own batteries in just a few seconds.

That's why these batteries are always fresh and that is why they last longer, burn brighter, and costs less.

A Real Necessity in Every Walk of Life

There are a thousand and one uses for flashlights. There is hardly a step taken after dark when a light is not necessary.

How handy and safe a Make-UR-Own flashlight is when looking for something in the dark clothes closet, in the pantry, up in the attic, down in the basement, out in the barn, in the garage,—everywhere, and with perfect safety. Every Make-UR-Own Flashlight outfit bears a guarantee that fully protects you.

No come-backs, no grief, nothing to make good on.



No. 240 Regular Tubular size Make-UR-Own Battery Flashlight Service Outfit includes one Nickel Case, No. 6056, equipped with a Mazda 2.9 volt lamp; parts to make 6 cells; or three 2-cell batteries to fit case.

Prices, \$1.35.

No. 120 Make-UR-Own Battery Flashlight Service Outfit is the same as above, but in the Baby Tubular Size.

Price, \$1.15.

Write us on your letter head for a sample set. We will ship it on approval. If it doesn't look good to you, send it back at our expense.

If you like it, place a small order for a dozen assorted sets (with the name of your jobber) and the sample is yours.

Stuart Products Corporation

430 South Green St., Chicago

We are Manufacturers of the Complete
Line of Standard Flashlights
and Batteries.



No. 6404 Regular Tubular size Renewal Make-UR-Own Battery Set consists of prepared material sufficient for 3 batteries of 2 cells each; or 2 batteries of 3 cells each; for 1 1/4" x 6 1/4" or 1 1/4" x 8 1/4" flashlight cases; interchangeable in any standard flashlight of similar dimensions. Price \$1.00

No. 6302 Make-UR-Own Battery Set is the same as the above but in the Baby Tubular Size. \$0.90



“SAFETY” SWITCHES
Externally Operated

THE TRUMBULL ELECTRIC MFG. CO.
PLAINVILLE, CONN., U.S.A.

Get Our Safety Switch Bulletin NO 3 just off the press

PROTECTION, *plus*—

The photograph above shows a “Circle T” installation in a Packing House in Oakland, California—affording absolute safety for both men and equipment—a real case of PROTECTION, *plus*.

The three great safety features of “Circle T” safety switches are:

- 1—Box cannot be opened until switch is in off position.
- 2—An interlocking device prevents the switch from becoming closed until cover is down. This interlocking catch can be manipulated, however, when it is necessary for an expert to examine the switch in running position.
- 3—This switch may also be equipped with a shield which covers the switch itself leaving only the fuses exposed—giving 100% safety.

Write for the Safety Switch Bulletins

THE TRUMBULL ELECTRIC MFG. CO.

PLAINVILLE, CONN.

New York 114 Liberty St.	Chicago 40 So. Clinton St.	San Francisco 595 Mission St.	Boston Philadelphia
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Torrington

ELECTRIC VACUUM CLEANER



WHEN you *buy* TORRINGTONS you *buy* satisfaction. The TORRINGTON is satisfactory to sell because it sells quickly and easily. It is backed by the largest advertising campaign ever scheduled for a vacuum cleaner.

When you *sell* TORRINGTONS you *sell* satisfaction—for the carpet-sweeper brush in the nozzle of the TORRINGTON and the strong suction, coupled with TORRINGTON durability will satisfy any customer.

Booklet M.

THE TORRINGTON COMPANY

NATIONAL SWEEPER DIV.

Torrington,

Conn.

This Is the Day

This is the day of big possibilities in the retail electrical field.

Progressive electrical interests realize that they have been blinded by the tremendous growth of the industry in the past. Today they see that its development has been nothing compared with the possibilities of the next two years.

ELECTRICAL MERCHANDISING has had its part in setting the stage for the coming expansion. Through its constructive work with the contractor and dealer the scarcity of channels for retail distribution has been overcome to a great extent.

Let this service supplement your own efforts during the coming year.

Use the attached coupon to place your name on the subscription list of ELECTRICAL MERCHANDISING today.

Electrical
Merchandising,
10th Ave. & 36th St.,
NEW YORK CITY

Send me ELECTRICAL MERCHANDISING for 1920 and include without charge copies of October, November and December, 1919, starting my subscription with the issue of January, 1920. I will remit on receipt of bill.

Name.....

Address.....

City.....State.....

Company.....Position.....

Electrical Merchandising

The Monthly Magazine
of the Electrical Trade

\$2.00 a year in the U. S., extra zone postage West of the Mississippi, 25 cents. In Canada, \$2.50. Foreign, \$3.00

MILLER *Lighting* Fixtures for 1920

give you your profit—right over the counter.

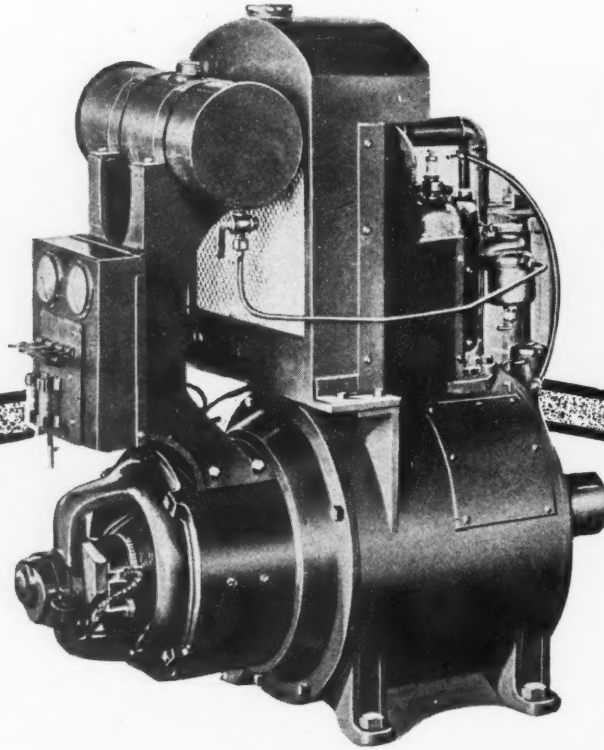
Miller dealers backed by an aggressive sales policy are not only assured of adequate *known profit* but are also enabled to participate in the extra selling this policy makes possible.

Serial fixtures in cartons and portables in cartons complete, ready for installation, eliminate guess work in figuring and protect the merchandise.

A few territories are still open for Miller dealers—write us about it.

**Edward Miller
& Company**
Meriden, Connecticut





*There is Still Some
Open Territory
With a Remarkable
Sales Proposition*

Everlite Farm Lighting and Power Plants

JOBBER:

Are you going to take on a new department to your business in 1920?

Have you thought of the Farm Lighting Business?

You surely realize the great possibilities right now.

Here is a plant you can control exclusively in your own territory.

Perhaps you think you are not organized to handle it.

We are looking for just such jobbers because a plan for organization and selling has been completely worked out in every detail for you.

An advertising campaign is ready for you.

Our trained representative is ready to enter your sales department to assist in organizing and training your salesmen and promote sales.

Plants are ready for immediate shipment.

We want jobbers who can handle a substantial territory.

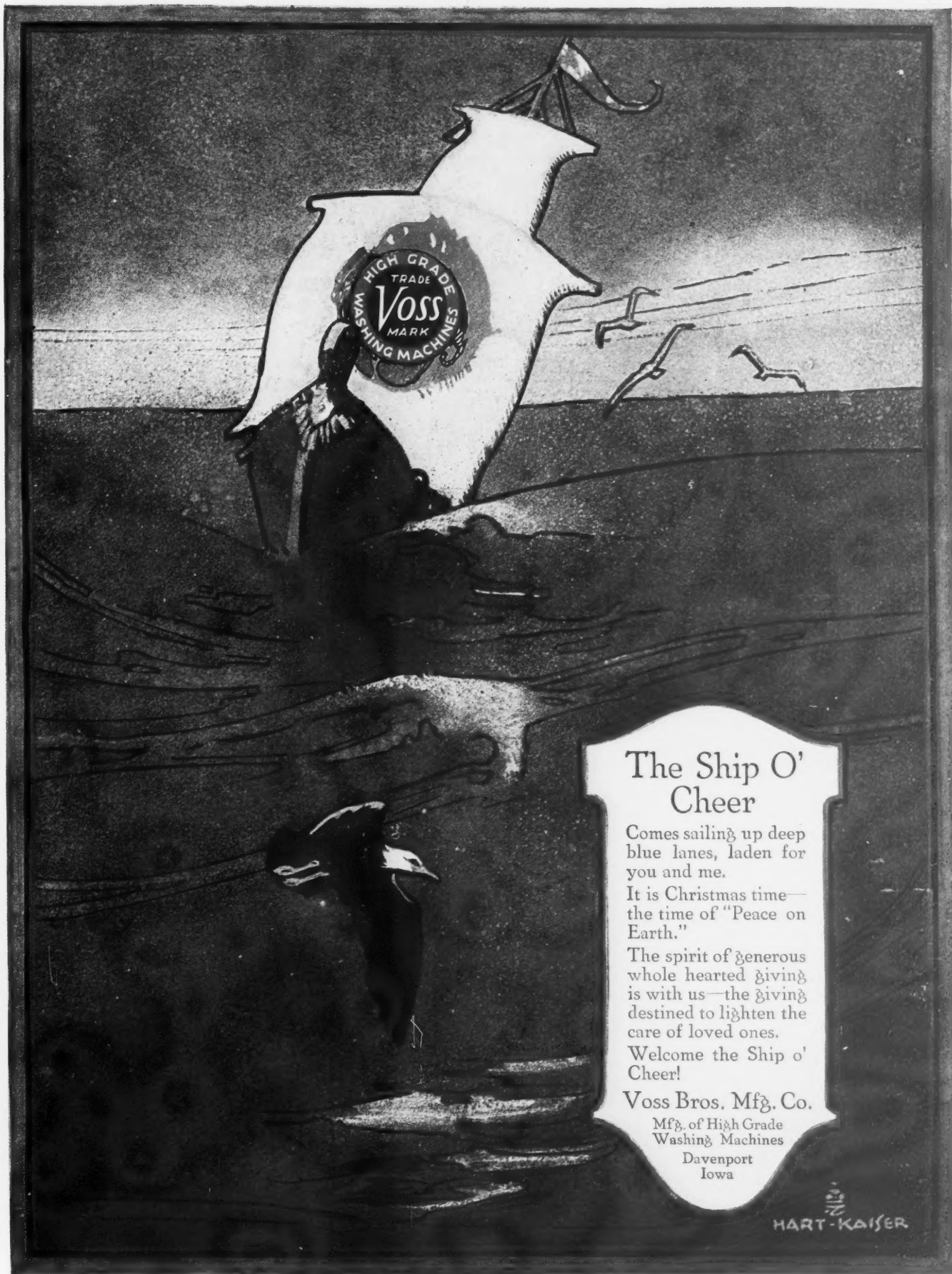
EVERLITE

Black Swan Company

Works: Minneapolis, Minn.

General Offices: Wascea, Minn.

References: National City Bank, N. Y. Kravath, Knachod and Kuhn, N. Y. First and Security National Bank, Minneapolis, Minn. First National Bank, Wascea, Minn.



The Ship O' Cheer

Comes sailing up deep
blue lanes, laden for
you and me.

It is Christmas time—
the time of "Peace on
Earth."

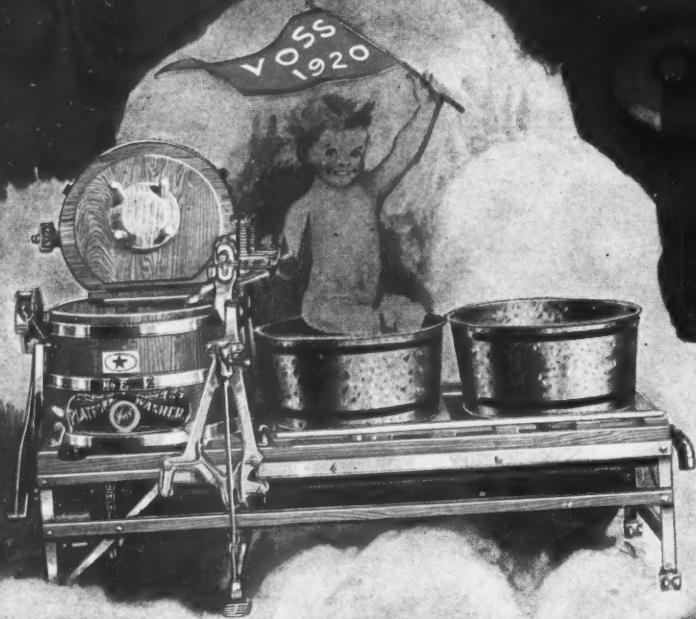
The spirit of generous
whole hearted giving
is with us—the giving
destined to lighten the
care of loved ones.

Welcome the Ship o'
Cheer!

Voss Bros. Mfg. Co.

Mfg. of High Grade
Washing Machines
Davenport
Iowa

HART-KAISER



WELCOME,
1920!

Your heritage includes
Peace, that hope of hopes.

Bear in mind that *com-
fort* contributes much to
happiness, and your prob-
lems will need *happy*
solutions.

My advice in parting
is—live in the *big things*,
Young 1920—abolish the
drudging details that
steal Humanity's time
for *living*.

FATHER 1919.

Distributors:

Electric Appliance Co., Pittsburg
R. M. Burton Sales Agency, Seattle
Heyman-Weil Co. San Francisco
Oklahoma City Hdw. Co., Okla. City
Ogden Furniture & Carpet Co., Ogden

Voss Bros. Mfg. Co.
Davenport, Iowa



"American Beauty" electric iron the best iron made

The profit you make when you sell these irons is not *all* there is in it for you.

If that was the only thing to be considered possibly there would be no good reason why you should push the sale of this iron in preference to others.

But that *isn't* all there is to it. Just as important to you as your profit, is the *satisfaction* of your customers.

The service which these irons render—and service is what people buy them for—is *so satisfactory* they tell their friends about the iron and about the store where they purchased it.

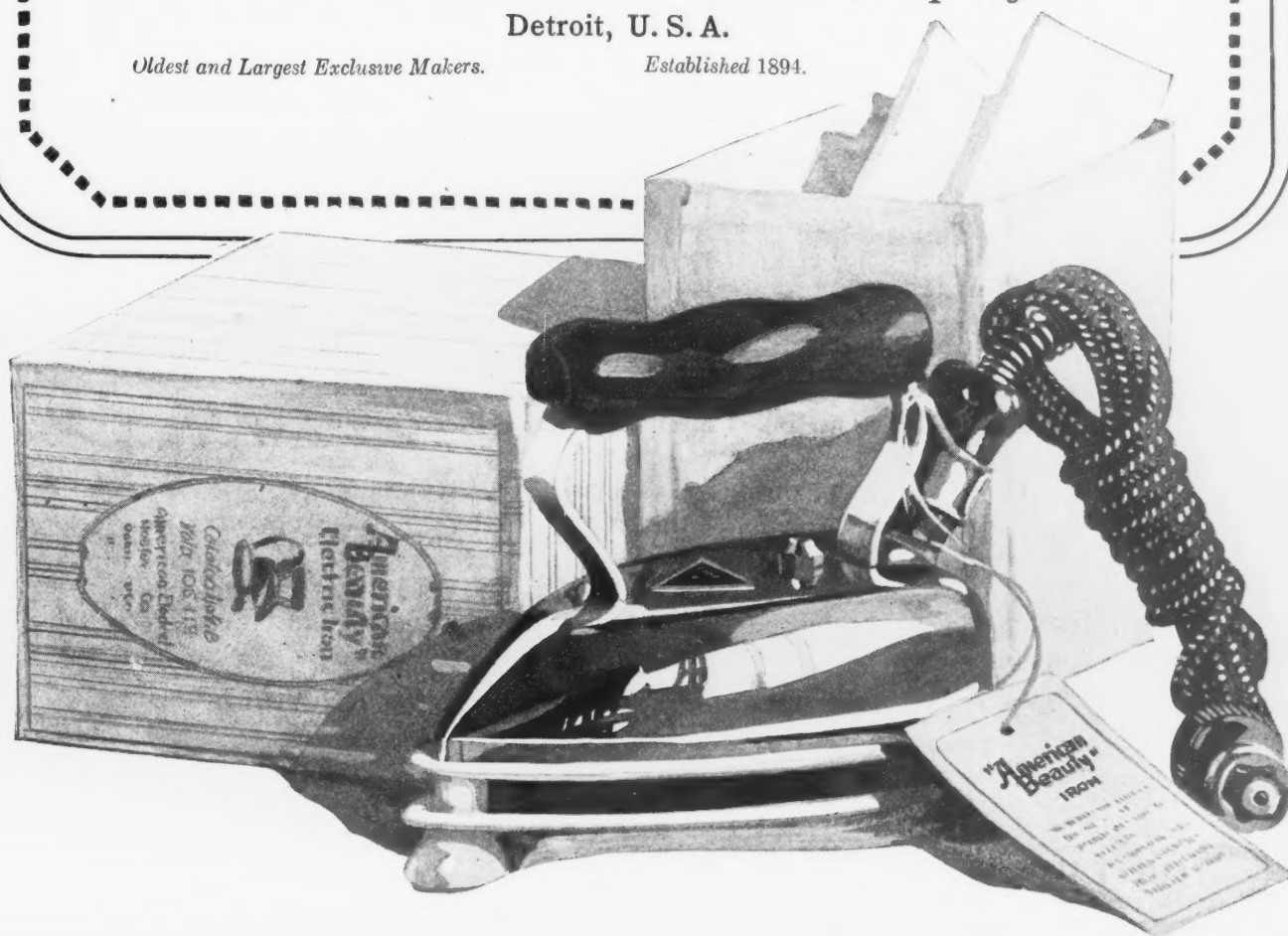
Every one you sell sells another for you.

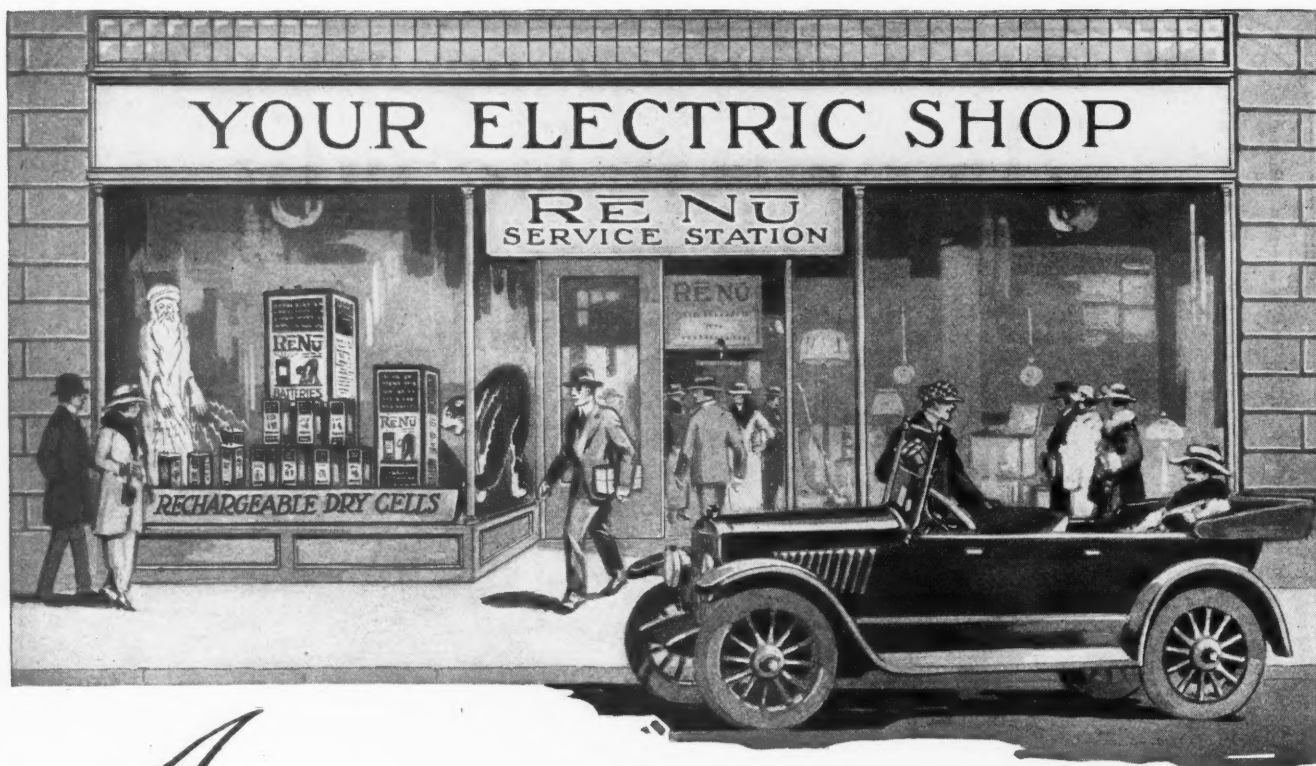
American Electrical Heater Company

Detroit, U. S. A.

Oldest and Largest Exclusive Makers.

Established 1894.





Announcing—
RENU
the battery with nine lives

—and every "new life" means a *new profit* for you!

—not only profit, but *prestige*, for your customers are constantly looking to you for new electrical goods and nothing you can offer them will be more welcome than RENU—the battery that is *guaranteed* for a minimum service of nine recharges!

RENU Batteries sell readily at a slightly higher first cost than ordinary batteries. Consequently, they yield a higher profit per sale—with new profits coming in from every recharge.

There is little or no investment necessary in recharging service—every recharge is practically all profit.

Every user of dry cells for any service will welcome the RENU idea—soon to be brought to their attention by an extensive advertising campaign.

We are establishing RENU SERVICE STATIONS—where an active, wide-awake dealer in each locality, through whom we shall concentrate our sales efforts, will share in the profits.

If you have the organization to handle the RENU proposition in a big way, write or wire us now.

RENU Batteries

95 Liberty Street

NEW YORK

Their Unequaled

Simplicity

assures permanent
and carefree

Service

Dealers! Jobbers!

Here is a pair of quick-sellers which will boost your daily sales. Every home has use for a bell-ringing transformer. Apartments buildings can use them for door openers, buzzers, etc. The field for their sale is unlimited.

Over 100,000 Now in Use

No. 3729
Full Size

BECKER'S TRANSFORMERS

"Tri-Volt" No. 3730

Becker's "Tri-Volt" Transformer is small and compact, easy to install. It can be depended upon to ring bells, buzzers, operates door openers and annunciators. It has three secondary voltage taps—6-8-14 volts.

"Pep" No. 3729

Becker's "Pep" Transformer is of the same design, with only one secondary tap—8 volts.

Becker Transformers are built right. They are lighter in weight and as rugged as other heavier transformers. *They weigh less than 1 lb.* When once installed they need no further attention. They last a lifetime.

No. 3730

Full Size

Write today for details on
Becker Bell Ringing Trans-
formers. Get your share of
this unlimited business.

PEERLESS LIGHT COMPANY

Main Office and
Factory:

CHICAGO



Eastern Branch:

483-5 Broadway,
New York City

Anticipate Your 1920 Sales

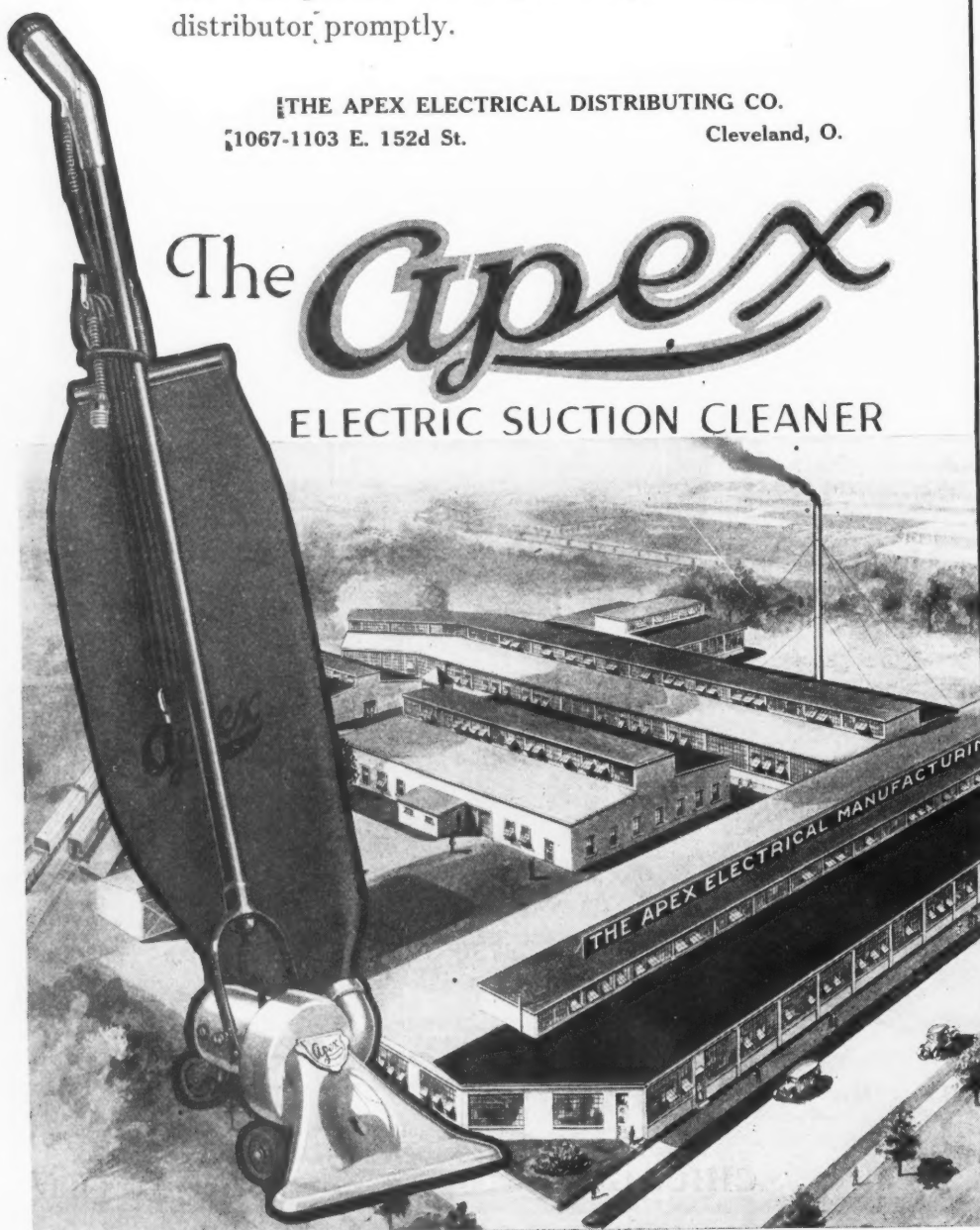
Already this great new "3 acre plant," (which last August we thought would be amply adequate to meet Apex cleaner demands for many years) is being crowded to capacity.

In striving to give Apex distributors all the Apex cleaners that they need,—to equalize the supply and make it go clear around, Apex dealers should make known their 1920 requirements at once, complete with delivery schedules.

Quality will nowhere be sacrificed to speed production. Every good cleaner will be made that facilities will permit. Send your requirements to your distributor promptly.

THE APEX ELECTRICAL DISTRIBUTING CO.
1067-1103 E. 152d St. Cleveland, O.

The *Apex*
ELECTRIC SUCTION CLEANER



APEX DISTRIBUTORS

- Moore-Handley Hdwe. Co.
Birmingham, Ala.
Creighton-Morris Co.
Oakland, Cal.
Illinois Electric Co.
Chicago and Los Angeles
The New England Elec. Co.
Denver, Col.
Doubleday-Hill Elec. Co.
Washington, D. C.
Livingston-Yonge Co.
Jacksonville, Fla.
Gilham Schoen Elec. Co.
Atlanta, Ga.
Belknap Hdwe. & Mfg. Co.
Louisville, Ky.
Interstate Electric Co.
New Orleans, La.
Baltimore Elec'l. Supply Co.
Baltimore, Md.
Wetmore-Savage Company
Boston, Mass.
Tae Stroud-Michael Co.
Cleveland, Detroit, Pittsburgh
Hackett, Gates Hurty Co.
St. Paul, Minn.
Funsten Electric Company
Kansas City, Mo.
Central Telephone & Elec. Co.
St. Louis, Mo.
Electrical Equipment Co.
Butte, Mont.
The Korsmeyer Company
Lincoln, Nebr.
Newark Electrical Supply Co.
Newark, N. J.
H. I. Sackett Electric Co.
Buffalo, N. Y.
Kimball Electric Company
New York City
Royal Eastern Elec'l. Supply Co.
New York City
Utica Elec. Appliance Co.
Utica, N. Y.
United Electric Co.
Oklahoma City, Okla.
Fobes Supply Company
Portland and Seattle
Frank H. Stewart Elec. Co.
Philadelphia, Pa.
James Supply Company
Chattanooga, Tenn.
Smith-Perry Electric Co.
Dallas, Texas
The Mine & Smelter Supply Co.
El Paso, Texas
Tel-Electric Co.
Houston, Texas
Inter-Mountain Elec. Co.
Salt Lake City, Utah
W. M. Reay & Company
Norfolk, Va.
Chas. Leonard Hdwe. Co.
Petersburg, Va.
The Front Company
Wheeling, W. Va.
- FOREIGN COUNTRIES**
H. Fuhrman & Co.
Buenos Aires, Argentina
J. Mitchell
Frahman, Australia
Dawson & Company, Ltd.
Montreal and Winnipeg, Can.
McDonald & Willson, Ltd.
Toronto and Winnipeg, Canada
Duncan Watson & Co.
London, England
Societe D'Electricite Mors
Paris, France
R. S. Stokvis & Zonen, Inc.,
Rotterdam, Holland
Monti & Martini
Milan, Italy
E. W. Mills & Company
Wellington, New Zealand



EDISON FARRAGUT 3800.

SIBLEY-PITMAN ELECTRIC CORPORATION
ELECTRIC SUPPLIES
 SIXTH AVENUE AT 13TH STREET
 NEW YORK
WHOLESALE ONLY

THEODORE BERAN,
 PRESIDENT
 GEO. D. PITMAN,
 VICE PRES.
 H. Q. FOREMAN,
 TREASURER
 W. A. KENNEDY,
 SALES MAN.

Mr. Contractor-Dealer:-

December 15th, 1919.

"Our Business Must Come Through You!"

Now, we open our plans for 1920, the pace is going to be fast -- watch our advertising -- we are carrying out a seven weeks campaign -- it covers seventeen different newspapers, Metropolitan and Suburban, -- your business must increase that our business may increase -- we are going to do it.

Local advertising of products nationally advertised by the manufacturer and sold under a sales policy, recognizing wholesale and retail service, will further increase our dealer business. We recognize that the maximum of results can only be obtained by proper preparation, and that the field of opportunity will not be limited we have prepared a "Financing Plan" that our dealers can negotiate deferred payment sales.

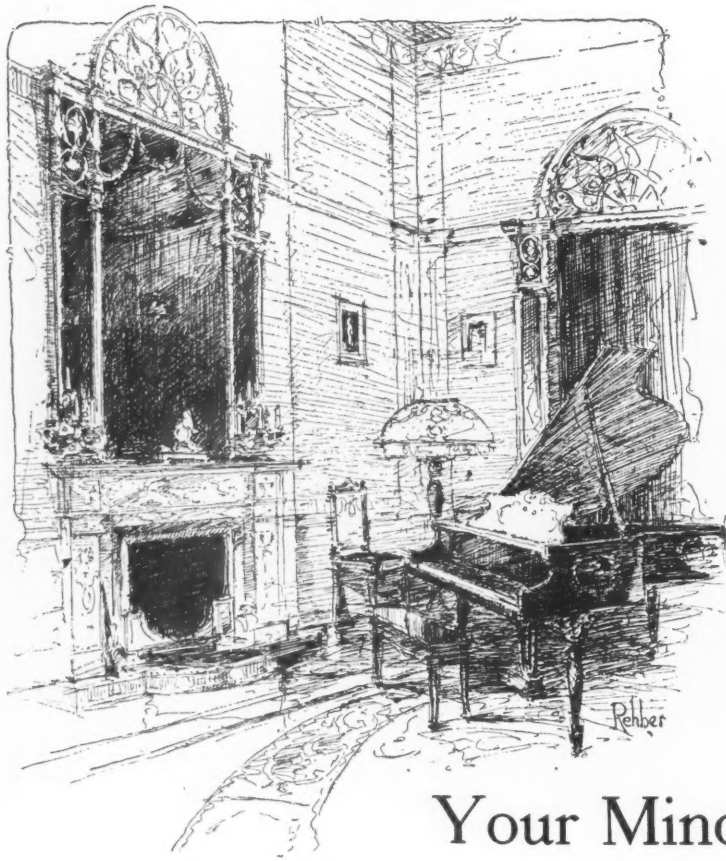
This plan has been completed with The Utilities Investment Company of Cleveland, Ohio, and our first campaign under the plan will cover the sale of Premier Cleaners. However, we propose later to negotiate deferred payment sales of washing machines, electric mangles, dishwashers, and in general all current consuming devices which can be sold on a deferred payment basis for the benefit of and as a means of increasing our business through the dealer.

We wish to thank you for your support of our Wholesale Only policy and we assure you that we will continue our efforts to strengthen our contractor-dealer retail structure. We extend to you our best wishes for progress, sales and profits for 1920 that will rebound to our joint success and happiness.

Yours very truly,

W. A. Kennedy
 Sales Manager.

WAKennedy/GVB



Your Minority Dominates

You have many times recognized that those who influence your community's buying habits are the people of taste and culture.

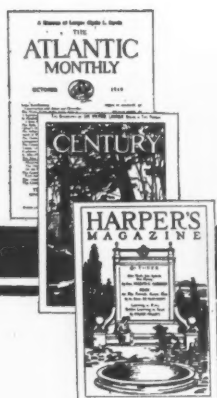
When you sell an electrical device to a home in this class you have noted an almost immediate volume of business on that particular article from various sections of town.

Such is the operation of returns from Quality Group readers—each influences ten other sales for you.

In this way your minority dominates.

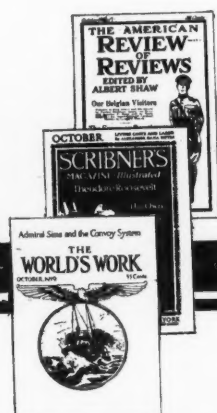
National domination is your local domination multiplied.

And that is why we say that the 750,000 homes reached by the Quality Group is a circulation which delivers ten-fold returns or



*Seven and a Half Million
Sales Power in*

THE QUALITY GROUP



RIVIERE

Portable Lamps

Supremely
Beautiful
yet
Moderately Priced

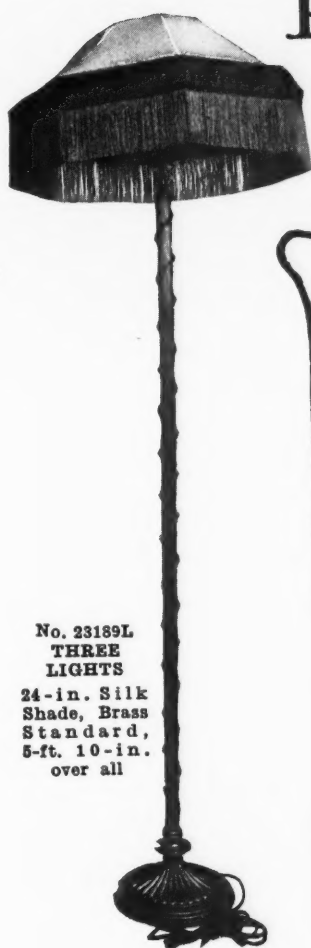
So beautiful that they are *'the first'* to attract your customers' attention.

So moderately priced they quickly transform the admirer into the buyer.

So liberal in their margin of profit that they mean extra good business for the Dealer.

The finest Department Stores and Specialty Shops in the Country are selling them, *are you?*

Riviere Brass & Bronze Co.
241 West 23rd Street
New York City



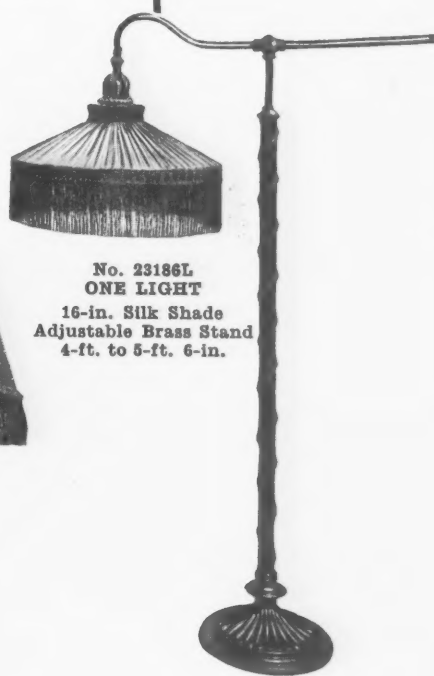
No. 23189L
THREE
LIGHTS
24-in. Silk
Shade, Brass
Standard,
5-ft. 10-in.
over all



No. 23198L
ONE LIGHT
16-in. Silk Shade
Adjustable Brass Stand
4-ft. to 5-ft. 6-in.



No. 2363L
ONE LIGHT
16-in. Silk Shade
Adjustable Brass
Stand
4-ft. to 5-ft. 6-in.



No. 23186L
ONE LIGHT
16-in. Silk Shade
Adjustable Brass Stand
4-ft. to 5-ft. 6-in.



EDWARDS

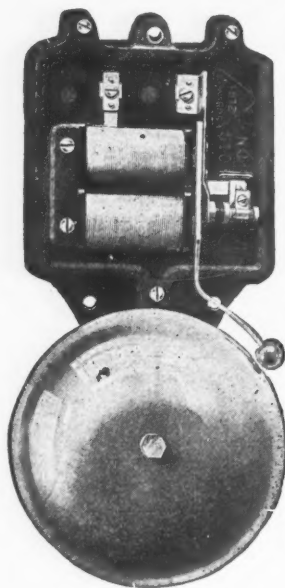
TRANSFORMER BELLS



THE best in bells—that's what EDWARDS stands for. For fifty years we've been making them as good as we know how—and we know how.

You'll always find the newest improvements first in Edwards Bells. They are best for the Dealer, because best for the user. With them you can sell real

BELL RINGING SERVICE



Wherever bell-ringing signals are operated on alternating current—one bell or a number of them simultaneously—you can sell Edwards Bells. They are the only large size bells that will operate satisfactorily on transformers of low wattage. They mean money for you.

Write for the Edwards Bell Bulletins.



EDWARDS and COMPANY
INC.

CHICAGO Monadnock Block NEW YORK 140th and Exterior Sts. ATLANTA 29 Poplar St.

Northern Electric Company
LIMITED

Canadian Distributors

BELLS



It is no longer necessary to bother with a stock of various makes of links. You can now standardize your fuses by replacing all blown links with "Union" and gradually equip your entire plant with "Union" Fuses as old fuses become useless.

No matter what fuses you are now using, you can reduce your fuse maintenance cost by installing "Union" Fuses.

Without obligation our Fuse Engineers will gladly make a survey of the fuse conditions in your plant and point out where "Union" Fuses of the right type will save you money.

They will recommend "Union" Renewable Fuses for circuits subject to sudden overloads and frequent blowouts. For in such places it is economy to pay the slightly higher first cost of renewable fuses in order to be able to renew the link at very small expense.

And they will recommend non-renewable fuses where the current flows smoothly and evenly. For under such conditions where blowouts seldom or never occur, it is economy to use non-renewable fuses.

For more than 30 years "Union" Fuses have held first place in reputation for high quality, reliability and all that goes to make dependable and serviceable fuses.

The public have found by experience that every fuse bearing the name "Union" can be depended upon.

You owe it to yourself, your firm and your pocketbook to find out what you can save with "Union" Fuses.

Interesting booklet is yours for the asking.

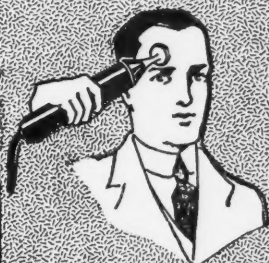
CHICAGO FUSE MFG. CO.

Oldest and largest manufacturers of Fuses,
Electrical Protecting Materials and Conduit Fittings,
CHICAGO NEW YORK



VIOLETTA

VIOLET-RAYS
not a vibrator



Get Your Share of these Big Profits

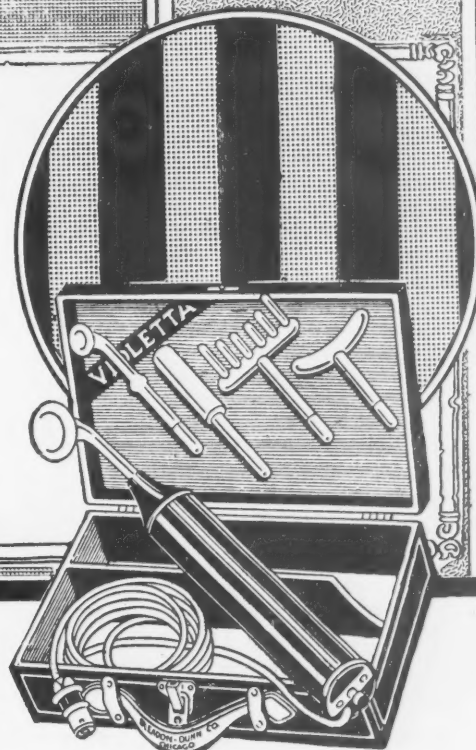
Here is a device whose sales possibilities are unlimited. In every doctor's office—in every beauty parlor—in every home in the country you'll find potential buyers. It is a device that has the endorsement of physician and scientist and the approval and recommendation of the layman. It brings health—energy—beauty to all who use it.

Is it any wonder, then, that Violetta sales come quick and easy? Why, Violetta practically sells itself but when backed by our nationwide advertising campaign to the consumer and our honest-to-goodness co-operation to the dealer, sales increase a thousand fold.

BLEADON-DUN COMPANY

336 W. Madison St. Chicago.

Export Agent: Theo. Stave Co., 30 Church St. New York



Now is a good time to get the facts

Sit down now and write for our "Big Sales—Big Profits" plan. Take advantage of our national advertising. Window displays—showcase displays—cuts for newspaper ads—are all yours for the asking without cost. Sell an advertised product. Write today for the facts.

"APPLETON" Concrete Boxes



Catalog No. RC-3 1/2

TO facilitate the installation of conduit and boxes in concrete floor construction, we have designed Concrete Boxes to meet every requirement for this class of work.

These boxes are furnished either round or octagonal in six depths according to the various thicknesses of concrete and knock-outs are so placed that installation is simple and quick. Two outward projecting lugs are provided so as to fasten box to wooden form while concrete is being poured. Removable, flanged bottom plate is attached to the box after conduit work is completed.

The flanged bottom plate is provided with holes drilled for fixture stems should the installation require same and also provided with one 1/2 inch knockout in center. Boxes can be furnished either with Black Enameled or Galvanized finish.

Complete listing of the above boxes and numerous other Conduit Fittings in our large catalog No. 8. Copy sent upon request. Write today.



Appleton Products Include

"Unilets," Outlet Boxes and Covers, Laundry fittings, Locknuts and Bushings, Meter Terminal Fittings, Entrance Fittings, Fuse Wire and Links, "Pagrip" Metal Molding and Fittings, Conduit Clamps and Hangers, also Switch Boxes.

APPLETON ELECTRIC COMPANY

229 North Jefferson Street

CHICAGO

New York
55 Barclay St

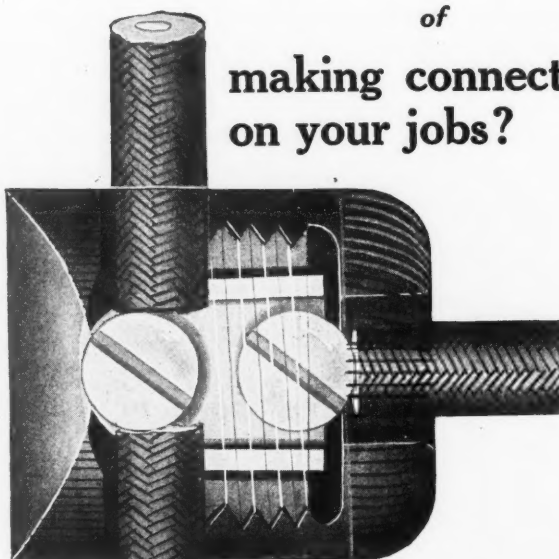
St. Louis
917 Pine St.

San Francisco
509 Mission St.

What is the cost

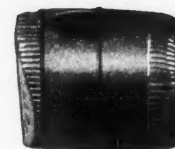
of

making connections
on your jobs?

Enlarged
Phantom
view

Walger 3-Way

Use it to tap feed wires in outlet boxes, condulets, and on knob and cleat work. Saves time, cuts costs.



Actual Size

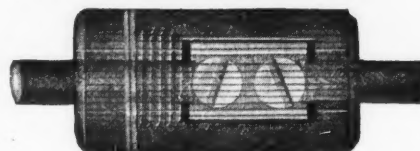
Walger CONNECTORS

WHEN you use Walger Connectors, all the connections on the job are completed in *one-fifth* the time at *one-half* the cost. A fact you can profitably prove on your very next job.

And best of all, every Walger-made connection is perfect; substantial, tight, and absolutely insulated.

Approved

by the National Board of Fire Underwriters and the Hydro Electric Power Commission for No. 12 and all smaller wires.



Phantom view—actual size

Walger 2-Way

For connecting two wire ends—*quick!*
Send for samples.

Your jobber can supply you.

Made in the United States.

WALGER CONNECTOR COMPANY

Sales Agent:—

C. JACKSON, 32 Front Street, W., Toronto, Can.

DISTRIBUTORS:

The Royal Eastern Electrical Supply Co., New York City.
The Stuart Howland Co., Boston, Mass.
The H. C. Roberts Electric Supply Co., Philadelphia, Pa.
The H. C. Roberts Electric Supply Co., Syracuse, N. Y.
The Commercial Electrical Supply Co., 42-46 Congress St., Detroit, [Mich.]
Minerallac Electric Co., Washington Boulevard, Chicago, Ill.
Central Telephone & Electric Co., St. Louis, Mo.
The Union Electric Company, Pittsburgh, Pa.

Place Your "Wants" in the SEARCHLIGHT SECTION

*For Word, Line, Display Type
and Space Rates see page 164*

Electrical Equipment and Appliances for Sale, for Rent and Want Ads

Positions Wanted

Educational

Agents Wanted

Agencies Wanted

Salesman Wants Connection

Salesmen Wanted

Business Opportunities

Representatives Wanted

Foreign Business

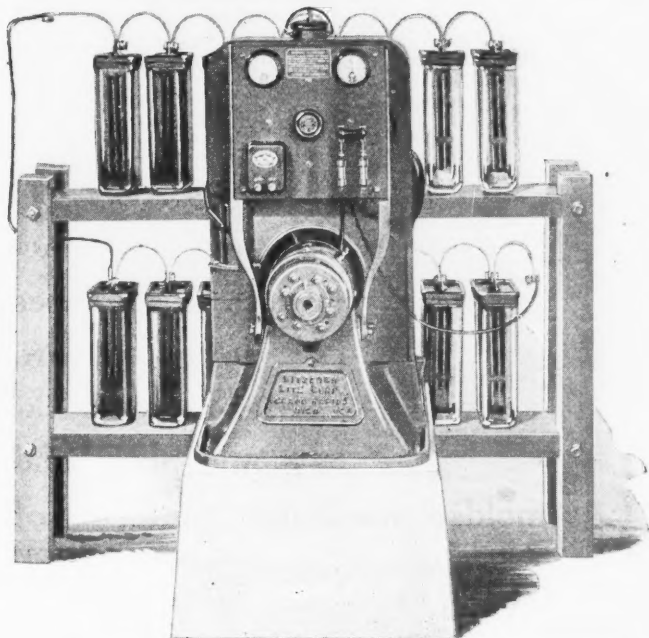
Partner Wanted

Patents for Sale

Positions Vacant



Belt Power —in addition to electricity



Dealers who supply the Litscher Lite plant have the advantage of offering a lighting plant that operates belt drive machinery by means of a belt power pulley.

Prospective purchasers of farm lighting equipment prefer the Litscher Lite plant because of its greater usefulness and because of the fact that it charges its own batteries at the same time that it is operating belt driven machinery.

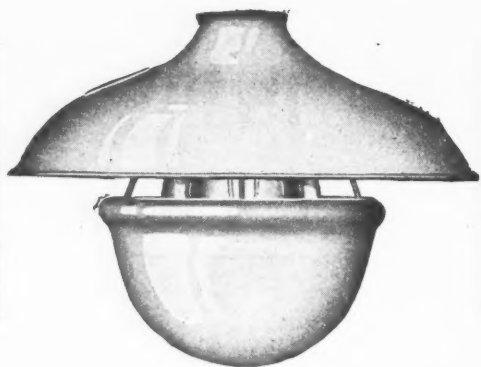
Because this plant offers so many points of advantage beyond all other farm lighting equipment, you should investigate the selling proposition.

Litscher Lite Distributors:

J. B. Terry Company,
Cedar Rapids, Iowa
G. Q. Electric Co.,
Milwaukee, Wis.
The Varney Electrical
Supply Co.,
Indianapolis, Ind.
The Litscher Lite Co.
of Oklahoma.

H. C. Tafel Electric Co.,
Louisville, Ky.
C. J. Litscher Electric Co.,
Grand Rapids, Mich.
Export Office,
80 Fifth Ave., New York
Halabird Electrical Co.
San Francisco, Cal.

LITSCHER LITE CORPORATION GRAND RAPIDS, MICHIGAN



Stores and Shops are Waiting for Better Lighting Go After This Business with The Eye-Shield Diffuser

Any trade or business publication you pick up today speaks of the results and effects of better lighting.

The business man KNOWS what this better lighting can do for him, and it is not necessary to "sell" him on that idea. What he is waiting for is the "lighting unit" that will fulfill all the demands of better lighting.

The Eye-Shield Diffuser is first of all designed as an auxiliary to standard lighting fixtures—not as a fixture. The lamp itself is the basis for which the Eye-Shield Diffuser is designed and built.

The simplicity of construction makes it easy to install. Used with any reflector or shade.

Dealers—Contractors.—Go after this business with the same vigor that you put into appliance campaigns. The resulting profits will be more than gratifying.

Write Today for full information and the proposition that goes with it.

Luminous Specialty Co.
Indianapolis, Ind.

Now Is the Time to Prepare for Winter Weather



ARE outside fixtures you sell weather-proof? Snow and sleet demand that you and your customers be prepared.

Walsh weather proof sockets enable the user to forget all about the weather. They are made of *Asbestos Composition* which

defies both weather and fire.

Walsh sockets have a heavy socket shell, smooth finish, no seams in sides, and lugs which *reinforce* the contacts between wire and shells.



We know what they will

do for your customers—and for your business. Let us prove it!



We are manufacturers of all types of composition, water-proof sockets and plugs and molded insulation material of every description.

Walsh Electrical Supply Co., Inc.
275 Madison Avenue, New York City

NATIONAL RENEWABLE FUSES

ONLY
ONE
ELEMENT
AT
A
TIME
CAN
BE
USED
WITH
THIS
FUSE.

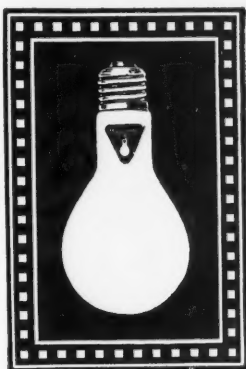
When we find a better fuse to offer to our trade, we will do so. However, we believe that NATIONAL RENEWABLE FUSES offer more advantages to the user, who is looking for absolute protection at a minimum cost, than any other renewable fuse on the market.

NATIONAL RENEWABLE FUSES not only embrace all the good features of other renewable fuses, but have all the security of the "One Time" fuse, with a great many other improvements.

It is the farthest advanced of any renewable fuse on the market. Let us prove our statements.

The Electric Sales Co.,

67 EAST DAY STREET
COLUMBUS, OHIO



WHITE

Hygrade C-4

Tipless, too. You can't carelessly hit the tip and break the lamp.



Won't Injure the Eyes

You know how you wink and blink when you look at a modern gas-filled lamp. That's why the

WHITE Hygrade C-4

tipless **GAS FILLED**

has been perfected. It's a brand new lamp, made especially to give light without dazzle—soft, artistic light with an opalescent glow—practical working light that's easy on the eyes.

There are dozens of places where every customer can use WHITE Hygrades.

Will you give them the chance and make the profit?

HYGRADE LAMP CO.

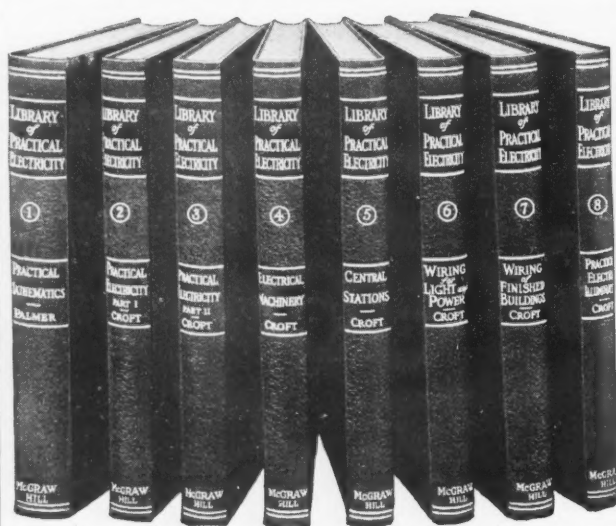
GENERAL OFFICE
AND FACTORY



SALEM MASS

The Hygrade triangle trademark—always in red—is on every Hygrade Lamp and Carton because the people who make Hygrade Lamps believe in them.

Are You Selling Motors?



ARE you selling in the Industrial field? If not you are missing a lot of very profitable business. For instance, selling motors to the factories and shops in your territory means big money, and it opens the door for other profitable industrial sales such as electric drills, grinders, hammers, the installing of new lighting systems, etc.

Of course, when you go after business in this field you must thoroughly know your own proposition and something of the prospect's requirements as well. You must talk the factory man's language and give him the kind of selling arguments that carry conviction for you and your proposition and cause him to accept your judgment. When you are trying to sell a motor installation, and the production manager or superintendent asks about the size, speed, phase, installation, etc., if you haven't got the right answer right away he will immediately lose confidence in you—and you will lose the sale and the chances of having the plant for a permanent customer.

Croft's Library of Practical Electricity—the standard for the American Electrical Industry—will prove a definite powerful aid in getting industrial business. It gives you all the technical knowledge you need to talk to any prospect—all in clear, understandable language. And it's ready for you just when you want it—before calling on a technical prospect you can get all the information you need to make a sound, "brass tacks," order-getting sales talk.

PROOF is what you want and proof is what we offer you. We want you to prove conclusively to yourself the business-getting value of these books. We will send you the set (shipping charges prepaid) for ten days' free examination—plenty of time for you to look them over and see for yourself what a constant help they will be to you and the men in your organization. No advance payment is necessary.

Just fill in and mail the coupon below.

Free Examination Coupon

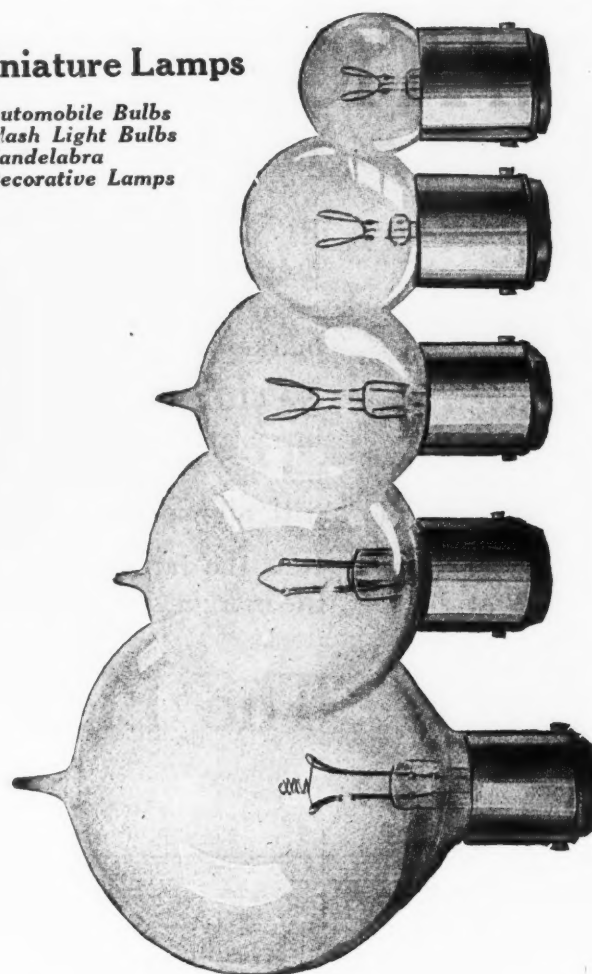
McGraw-Hill Book Co., Inc., 239 W. 39th St., New York

Gentlemen: Please send me the Library of Practical Electricity (shipping charges prepaid) for 10 days' free examination. If satisfactory, I will send \$2 in ten days and \$2 per month until \$16 has been paid. If not wanted, I will ~~write~~ you for return shipping instructions.

Name
Home Address
City and State
Name of Employer
His Address
Your Position E. M. 12-19

Miniature Lamps

Automobile Bulbs
Flash Light Bulbs
Candelabra
Decorative Lamps



GET IT

The aggressive Electrical Dealer or Jobber is going to get a good share of that profitable miniature lamp business which will necessarily follow the increased sale of automobiles. The opportunity for the sale of automobile bulbs is big in every community. Get your share of this business.

We make a complete line of miniature and automobile lamps in both Vacuum Tungsten and Gas filled types. Prompt deliveries in any quantities.

Write today for our proposition and liberal discounts.

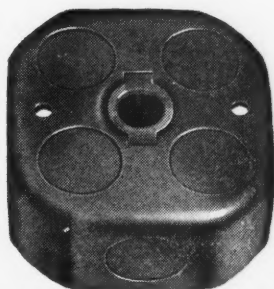
The A. C. Mannweiler Co., Inc.

Manufacturers of Miniature Incandescent Lamps and Automobile Bulbs

1018 Savilla Avenue

Fort Wayne, Indiana

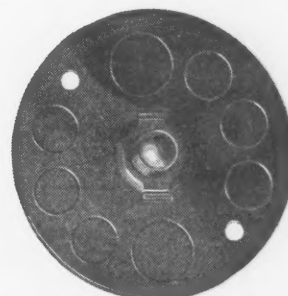
License Manufacturers under all General Electric Miniature Incandescent Lamp Patents



No. 900-O Octagon Conduit Box
with Fixture Stud Locked in.



No. 1000—Fixture Stud



No. 904-R Flat Loom Plate Showing
How Fixture Stud Locks.

BETTER  **GOODS**

Greater Profits!

Greater Savings!

To the electrical **JOBBER**—thru the constructive sales policy making possible a greater volume of business. **To the CONTRACTOR**—by the patented B-G features which embody Safety, Accessibility and Economy. **To the property OWNER** by being assured of a more perfectly installed job.

B-G products are of such high standard and superior advantage that they are distributed by the largest and best Jobbers in the United States and Canada. There is room for a few more. **ACT TODAY.**

OUTLET BOXES

JUNCTION BOXES

SWITCH BOXES

FIXTURE STUDS AND COVERS

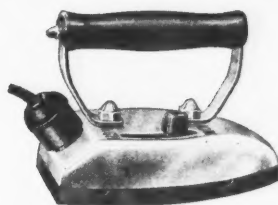
WRITE FOR CATALOGUE NO. 1

THE TOLEDO METAL PRODUCTS COMPANY

General Offices: 956-7-8-9 Spitzer Building

TOLEDO, OHIO

The Reimers Regulator Iron



The new type electric iron

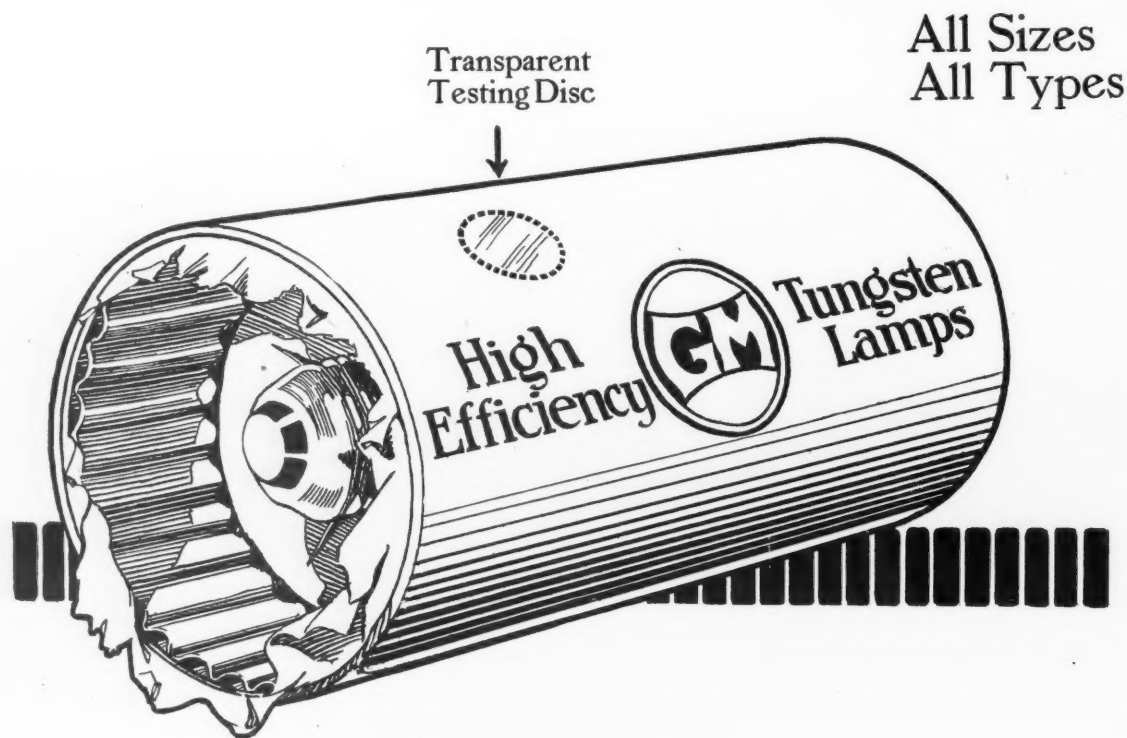
Regulates the Heat

A simple movement of the finger tip gives the right heat for ironing any grade of material. The heat can be maintained at any degree desired.
Cuts ironing time and the current bill, one third.
Built for the very hardest service.
Used by thousands of Garment Manufacturers, Laundries, etc. throughout the country.
Standard sizes—6-8-10-12-15-18 lbs.

Prompt Shipments

Reimers Manufacturing Company

513 West 50th Street,
NEW YORK CITY



GM

High Efficiency Tungsten Lamp

From the Dealer's View-Point

Packed in an ingenious, strong carton that contains no excelsior, with its attendant fire risk, and that occupies one-third less space.

You can test every G-M Lamp without disturbing its wrapper.

The G-M High-Efficiency Tungsten Lamp is a product of expert engineering and rigid laboratory tests—one of the few lamps in the country so backed.

Flat discounts, allowed on order, permit full earnings from the start. Write for schedule of prices and discounts

Lord Manufacturing Company

INCORPORATED 1905

ELECTRICAL DISTRIBUTORS

105 WEST 40th STREET

NEW YORK

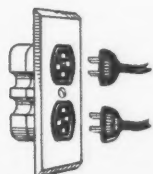
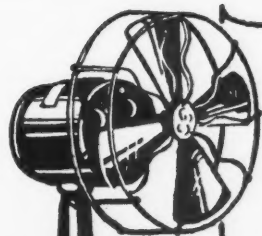
Boston

Providence

Newark

Baltimore

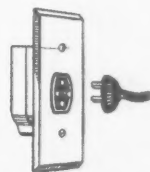
Address All Communications To Main Office



Duplex Receptacle

Connection for two appliances

WHICH?



Single Receptacle

Connection for one appliance

**C-H 77-20
Duplex
Receptacle
with C-H
77-22 Plate**



The Duplex Receptacle permits connecting two electrical appliances at one time:—iron and fan; floor lamp and portable radiator; toaster and fan or percolator; table lamp and floor lamp; etc., etc.

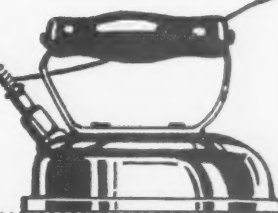
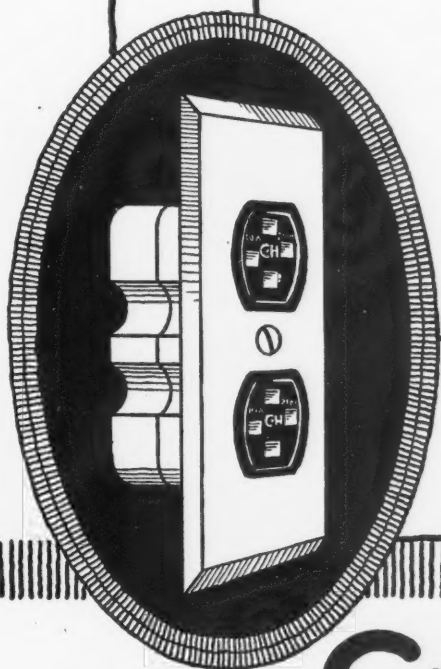
And it requires no more wiring than for a single receptacle and fits the same size outlet box.

The Duplex (C-H 77-20) doubles the possible appliance connections.

Quality Electrical Work includes an Adequate Number of Wall and Baseboard Receptacles

THE CUTLER-HAMMER MFG. CO.
makes a complete line of Receptacles and Attachment Plugs.

CARRIED BY ELECTRICAL JOBBERS AND SUPPLY DEALERS



CH 77-20 DUPLEX RECEPTACLE

FOR INSTALLATION ON NEW JOBS AND REPLACING SINGLE RECEPTACLES ON OLD JOBS

MILNER-FLOWER of BUFFALO

OUR ORGANIZATION

We—The Milner-Flower Electric Company of Buffalo—are a new organization for the wholesale distribution of Electrical Household Appliances and Specialties. The men comprising the company are Electrical Selling Specialists—men who know the problems of the Dealer and are ready to serve him in the most effective way—by helping him sell goods.

OUR LINES

Eden Electric
Simplex Ironing Machines
Estate Electric Ranges and Heaters
America Electric Sweepers
Buckeye Incandescent Lamps
Ivanhoe-Regent Fixtures and Reflectors

OUR FINANCING PLAN

The time payment problem must be satisfactorily solved before any Dealer can achieve success. We have perfected a financing arrangement that is fair in every way—a plan that has no objectionable features and that will enable you to sell appliances on long time payments, without tying up your working capital.

OUR TRAINING SCHOOL

On the fourth floor of our building is located a real Salesmen's Training School—open, without charge, to the salesmen of our Dealers. Here, in a few days of intensive and practical work under expert instructors, the salesman can learn the "how" of bigger business for the Dealer—and for himself.

OUR SALES PLAN and ADVERTISING

Our Dealer's Sales Plan is the result of many years of practical application. It provides the Dealer, without charge, with a complete system for doing business—accounting, inventory, survey and prospect cards, follow up files and assignment slips, advertising record, etc. And our remarkable Advertising Program will prove a constant source of sales.

OUR POLICY

Our permanent policy is to sell to Dealers *only* and to constantly help them sell to their customers. We sell *nothing* at retail. We gladly give any prospect or inquiries we receive to the Dealer in whose territory they are located. Our Dealer's interests and our own are one and the same.



256-268 Main St.
Buffalo, NY

An Announcement.

We are pleased to announce that effective as of November First we have added to our well established Mine and Mill Supply Jobbing business an **ELECTRICAL DEPARTMENT**.

This department will be under the management of **MR. A. C. HEUSER**, who, for the past nine years, has been in charge of a similar department with the Superior Supply Company, of Bluefield, West Virginia. Prior to that time **MR. HEUSER** was sales representative of the Westinghouse Electric and Manufacturing Company, of East Pittsburgh.

Located as we are in the heart of one of the largest coal producing areas of the world, and employing eleven experienced salesmen, we are able to give our **CUSTOMERS** the service they deserve, and reputable **MANUFACTURERS** the best means of distribution.

We solicit your co-operation and correspondence.

BANKS SUPPLY COMPANY, Huntington, West Virginia

Special Jobbers

Westinghouse Electric and Manufacturing Company

American Steel and Wire Company

The Bryant Electric Company

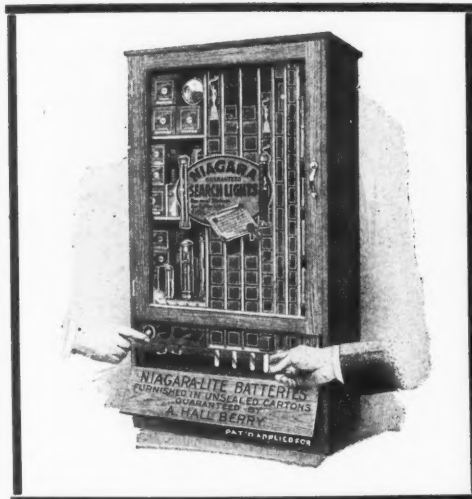
and many other well known Manufacturers

Niagara-Lite Sales Winner

Provides Complete Equipment for Your Searchlight Department.

A Battery Tester That Prevents Burning Lamp Bulb in Testing.

Attractive and Substantial. Suitable for Any Store.



Your Entire Flashlight Department Systematized and Simplified.

Oldest Stock Sold First—
From the Bottom of the Pile.
Saves Your Clerk's Time—
Saves Your Money.

Prevents Accumulation of
Soiled or Deteriorated Stock.

Through National Advertising the public is being made familiar with this Sales Winner Cabinet and the merits of the **NIAGARA** products.

The public realizes that searchlights and batteries sold in this clean and orderly manner means fresh, high-powered batteries and better service.

Will wonderfully increase your sales of this profitable line. Come in on the ground floor now.

A. HALL BERRY

71-73 Murray Street

Sales Dept.

New York, N. Y.

Making Better Merchants

Hundreds of electrical retailers, contractors, hardwaremen and central stations have become better merchants solely through the constructive service of **ELECTRICAL MERCHANDISING**.

It tells the electrical dealer how other men are running their businesses, and so, how he can run his own. It explains how to buy goods for their merchandising value, how to sell, trim windows, keep books and manage their organizations along sound, modern lines.

And other men of the trade—particularly jobbers' salesmen, manufacturers agents, traveling representatives and demonstrators—back up their own intensive methods with the new ideas and suggestions which **ELECTRICAL MERCHANDISING** brings to them each month.

If this copy is not your own to keep, carry away or do with as you please, make sure now that you get a copy during 1920.

The coupon makes it easy for you.

Clip it out, fill it in and mail it today and we will send you with our compliments the issues of October, November and December, 1919.

Electrical Merchandising

The all-round business magazine of the electrical trade

Subscription rates: \$2.00 a year.
Extra zone postage West of the Mississippi, 25¢. In Canada, \$2.50.

Electrical
Merchandising,
10th Ave. & 36th St.,
New York City

Send me Electrical Merchandising for 1920 and include without charge the issues of October, November and December, 1919. Check or Money Order enclosed.

Name.....

Address.....

City.....State.....

Company.....Position..... AD-D



"The Finest Vibrator in the World"

Because

—the Shelton Vibrator can be regulated from a pulsation to a full quarter-inch rubbing stroke
 —from the light facial vibration to the heavy body massage
 —because it embodies correct therapeutic values and is made for enduring service
 —the Shelton is recognized as "the finest vibrator in the world"
 —and is used throughout the world.

Retail prices range from \$18.50 to \$35.00.

Write for the Shelton Resale Proposition

SHELTON ELECTRIC COMPANY

New York
16 East 42nd Street

Factory: Fort Wayne, Indiana

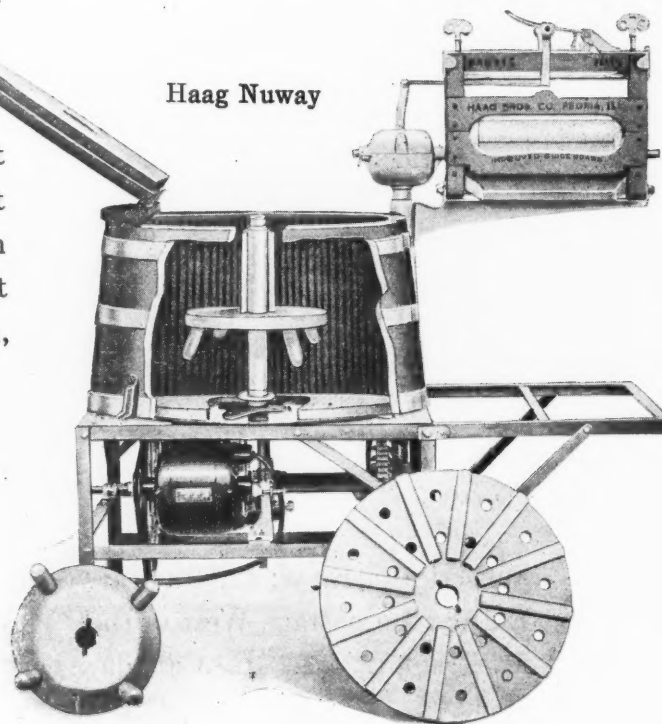
Chicago
30 East Randolph Street

Makes Good!

Wherever the Haag Nuway is sold, it makes good,—and stays sold. It is built to render genuine washer service. From the most delicate fabric to the heaviest blanket the cleaning is quick and thorough, without injury to the clothes.

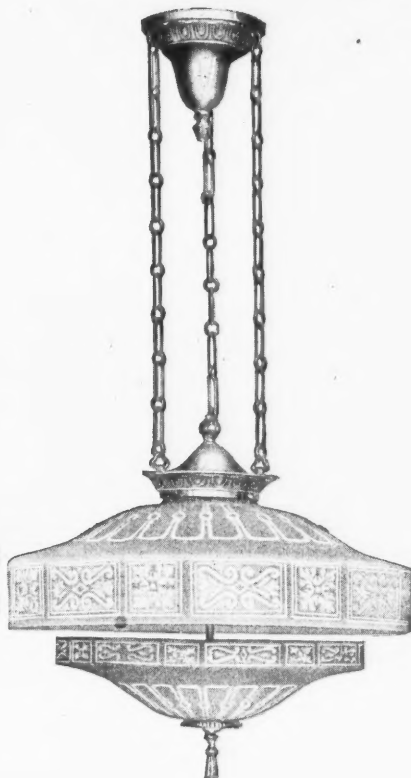
The Haag Nuway can be supplied with a motor of any voltage desired. It can also be equipped with a pulley which makes available the power of the motor for many labor-saving uses in the home.

NOW is the time to write and get full details on the HAAG, and our liberal Sales Plan.



HAAG BROS. CO.
PEORIA, ILLINOIS

Cora Diffusing Domes for Dining Rooms



The Demand of the Day

WHEREVER there is a home today there is someone who appreciates Beauty. Electrical Merchants are finding that Quality brings greater sales than ever before.

This in part is perhaps the reason for the big growing sales of the "Cora" Diffusing Domes for Dining Rooms.

The "Cora" domes are a specialized fixture of beauty to meet this beauty demand of today. Snow-white "Cora" Glass etched and tinted as desired. The lamps are concealed, all rays are diffused. The strongest light is concentrated on the table. Its efficiency is as great as its beauty. Can you imagine a more ideal lighting effect for the dining room?

Let us send you prices.

Consolidated Lamp & Glass Company CORAOPOLIS, PA.

NEW YORK, N. Y.
66 West Broadway.

PHILADELPHIA, PA.
634 Arch Street.

BOSTON, MASS.
164 Federal St.

PORTLAND ORE.
233 Sherlock Bldg.

CHICAGO, ILL.
17 N. Wabash Ave.
CINCINNATI, OHIO.
141 East 4th St., E.

PITTSBURGH, PA.
1103 Empire Bldg.

HAMILTON, ONT.
62 King St., East.

LOS ANGELES, CAL.
351 Pacific Elec. Bldg.

The NATIONAL Renewable FUSE

The National Renewable Fuse is so constructed that it is impossible to improperly reload it or load with more than one element at a time, thus giving absolute protection. There are many other features in the National Renewable Fuse which we would be glad to describe in detail. Just drop us a line and we will send you, without obligation, any information with prices. If you are a manufacturer, kindly give your dealer's name and address.

Woodill-Hulse Company Los Angeles, California

P.S. We have just sold to a manufacturer of a safety cut-out box used by Moving Picture Producing Companies a single order of five thousand 60 ampere National fuses. We believe this to be the largest single order of one size fuse ever sold in the West. Quality and safety got the business.

Woodill-Hulse Company LOS ANGELES, CALIFORNIA

SIMPLEX

ELECTRIC CLEANER

Now For the New Year

1920 will be a record year for Appliance Sales. Vacuum Cleaners will be one of the leaders—and the Simplex will be a leader among cleaners. Its all around efficiency and many exclusive features insure a big volume of business for Simplex Dealers.

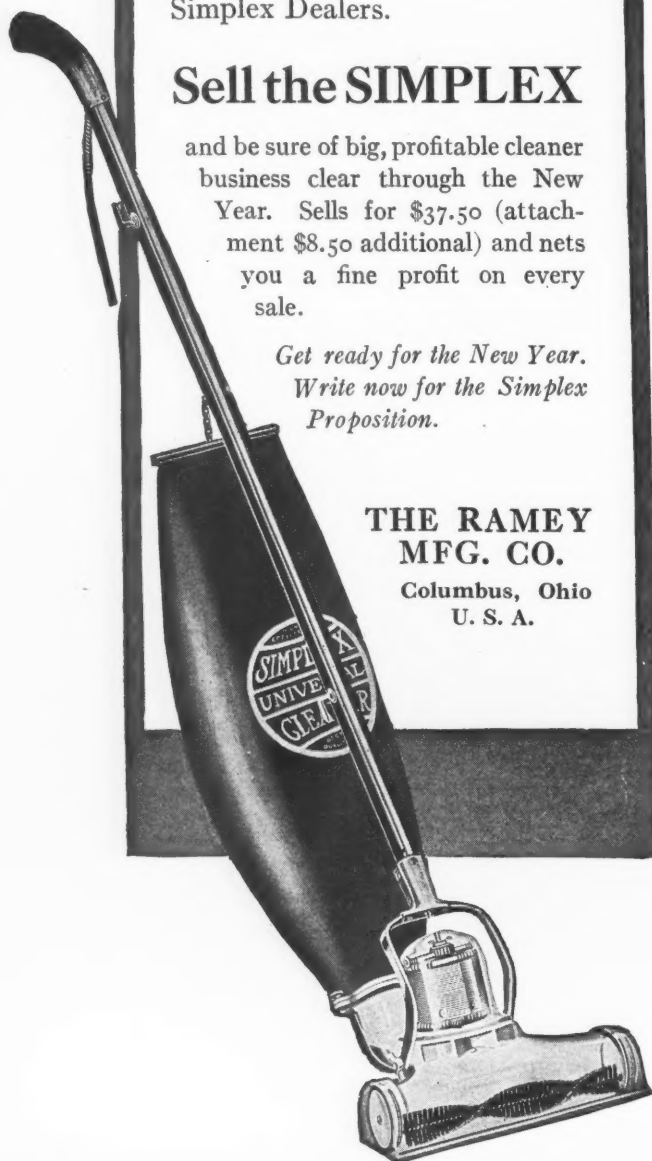
Sell the SIMPLEX

and be sure of big, profitable cleaner business clear through the New Year. Sells for \$37.50 (attachment \$8.50 additional) and nets you a fine profit on every sale.

*Get ready for the New Year.
Write now for the Simplex
Proposition.*

**THE RAMEY
MFG. CO.**

Columbus, Ohio
U. S. A.



**Largest
Sales**

**Biggest
Profits**



**The Famous
No. 100**

Sells on Sight

What you want is quick turn-over! This iron sells on sight! It is your fastest moving item!

It's the unsurpassed household iron. Carries unconditional INSURANCE POLICY. Weight, 6½ lbs. Ebonized handle. Mirror-like nickel-plating. Iron tips on end; separate stand if requested. The heat distribution is even throughout ironing surface. **HEATS INSTANTLY.**

Workmanship, construction and material absolutely guaranteed.

Send for Booklet—"Profit Insurance M"

SATISFACTION GUARANTEED

A CORPORATION

11 So. Desplaines St., Chicago, Ill.



*Keep Your Eyes
on the
Searchlight
Section
and your
Ad in it*

*See page 164
for Searchlight Rates*

HERE!

USE THIS

AT

OUR EXPENSE

We believe "the proof of the pudding is in the eating" and the quickest way to convince you of the merits of

BURNLEY SOLDERING PASTE

is to place a generous sample in your hands.

We're convinced if you try it, we will receive your future orders. Considering the present market price of "time" you will see the "why" and "wherefore of Burnley.

Tomorrow, today will be yesterday. So write *right now*.

THE BURNLEY BATTERY & MFG. COMPANY, North East, Pa.

Make this a Big Year For Majestic Christmas Sales

YOU can easily make the Majestic Electric Sun-Ray Heater one of the biggest factors in increased Christmas selling. The Majestic is one of the most useful gifts that you can sell your customers. And it won't take very much sales-effort to prove this to people. Show your trade that it gives heat instantaneously. Tell them about its many home uses. For beauty of appearance, the

MAJESTIC Sun-Ray Electric Heater

is way ahead of any other on the market, and the same thing holds true for its many exclusive features and advantages—the superiority of the Majestic heating element; the double shell construction that keeps the outside from becoming hot.

Display the Majestic Sun-Ray Heaters in your store. Give them space in your window. Sales will result. If you will get your order to us, we will ship without delay. Write today.

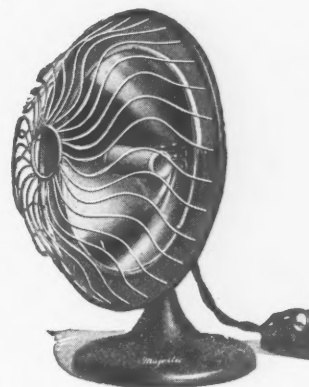
Majestic Electric Development Co.

1705 ALLEGHENY AVENUE

Kansas City, Mo.

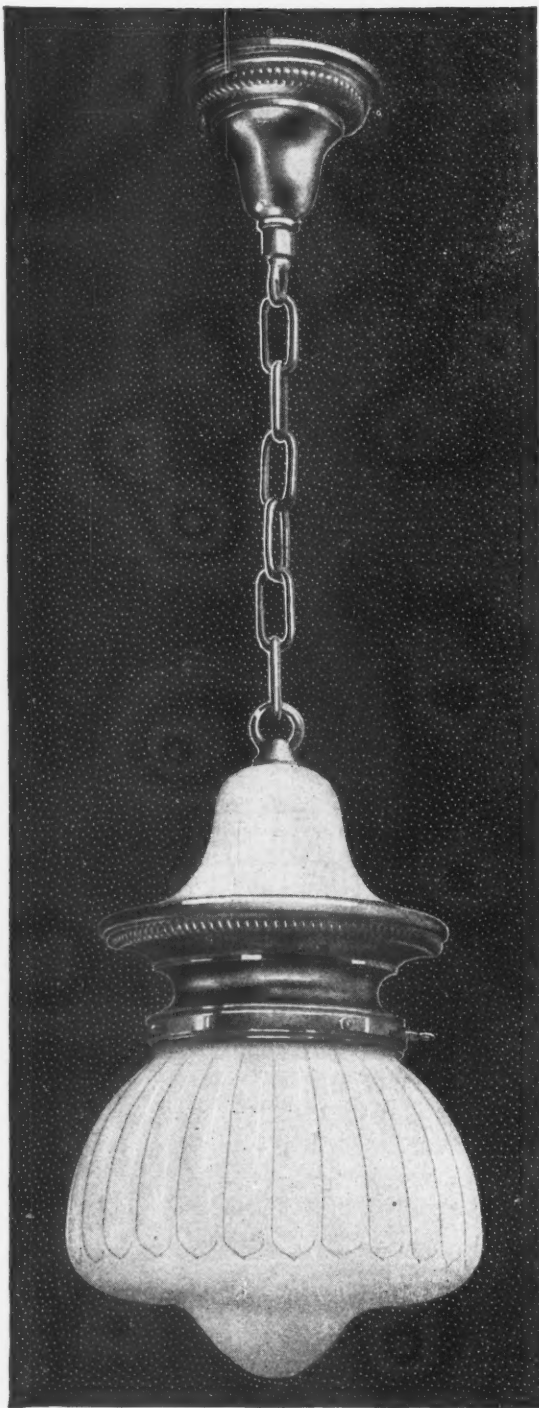
PHILADELPHIA, PA.

San Francisco, Cal.



THE HUMPHREY

Radio-30



A Blaze of Mellow Light

NO GLARE NO CONFUSION

The most highly efficient lighting unit on the market.

Electrical Department

General Gas Light Company

44 West Broadway, New York

Kalamazoo, Mich.
768 Mission St., San Francisco



A Machine You Can Back With Your Own Reputation

The Almetal is different from ordinary electric washing machines. It is a complete steam laundry, performing all the big operations of washing and eliminating the little jobs that make washing such a tiresome, unwelcome duty.

It heats the water, boils the clothes, washes them perfectly clean without wear and tear and wrings them out.

Mechanical Superiority

The Almetal has many features of construction not found in other machines. It is the first to come out with heat applied. But more than that, it is the *only* one with a successful gas burner—one that *keeps* the water hot under all conditions—that distributes the heat evenly and is enclosed with a shield to safeguard the operator's clothing.

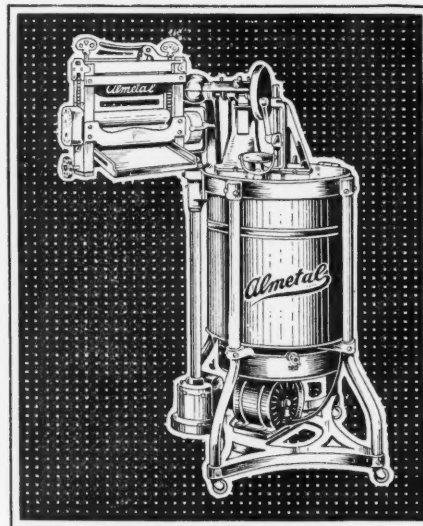
This one feature alone would be enough to make the Almetal the best machine for you to sell. But there are many other points of construction that put the Almetal far above all others. It is unquestionably the one machine you yourself can guarantee, knowing that we back every right claim you make.

Write for complete list of features

Manufacturers Distributing Co.
NATIONAL DISTRIBUTORS

403 Fullerton Bldg.

St. Louis, Mo.



"Steam's the Thing for Laundering"

Parts of Intimate Letters we have written our dealers' salesmen



No. 11

Deliveries

The subject of deliveries is important.

We have more than doubled our output since we entered our new factory.

In spite of that, however, we are away behind on orders—literally swamped.

Now we are planning still further additions to our plant.

Meantime, hundreds of dealers are writing for positions on our "preferred list." Of course at this moment we can do no more than list them, but when we are ready, it will be obvious that those who have spoken in advance will receive first consideration.

If you have not already done so, it might be wise to write us now.

LAUN-DRY-ETTE

WASHES AND DRIES WITHOUT A WRINGER

The Laundryette Mfg Co.
1178 East 152 nd St., Cleveland, O.

1 UNO
THREAD FOR
SHADE
HOLDER

ANYLITE

ELECTRIC

DIMMER

20
CHANGES
OF
LIGHT

ORDER

From your nearest
Electrical Jobber,

One card,

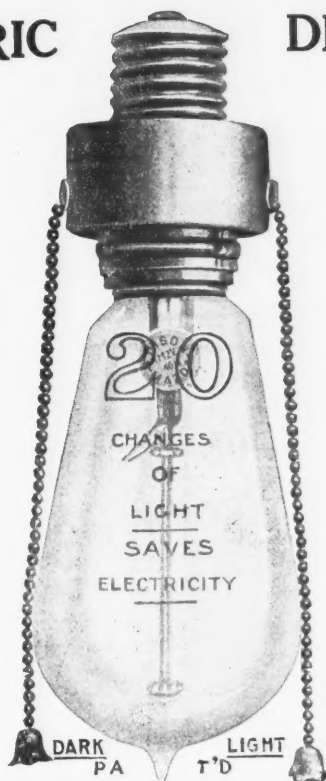
Containing Ten
REGULATORS, Place
them on your
Show Case.

RESULT

WILL BE, MANY SALES,
GOOD PROFITS,
SATISFIED CUSTOMERS.

EASY
TO
SELL

IT
WILL PAY



A

CHRISTMAS GIFT
THAT WILL BE USED
EVERY NIGHT OF THE
YEAR.

USED IN SICKROOMS,
BEDROOMS, HALL-
WAYS, NURSERIES,
HOSPITALS.

ON ANY LIGHT UP TO
AND INCLUDING 40
WATTS.

TO
TRY IT

NEEDED
IN EVERY
HOME

All Through the Coming Year

For a New Year's gift of definite service to your company we suggest that a copy of Electrical Merchandising be sent to each one of your traveling salesmen, demonstrators and other representatives during the coming year.

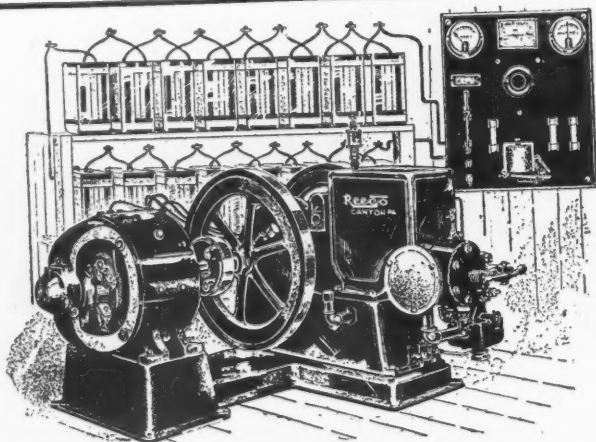
They will have constant use for it. Electrical Merchandising will keep them in contact with the new ideas and practices as the electrical trade develops them.

We will be glad to explain the advantages of our Club Plan for subscribing for Electrical Merchandising. Write today.

ELECTRICAL MERCHANDISING

10th Avenue and 36th Street,

New York City



THE REECO

Slow Speed Lighting Plants

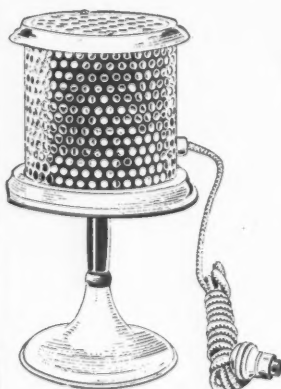
(Speed only 475 R.P.M.)

Long Life Low Upkeep Efficiency

Mr. Dealer: The Reeco Slow Speed Direct Connected Plant appeals to everyone.

With one flexible coupling the engine can be instantly disconnected from dynamo and used to do other work. It is a real power plant in a class by itself.

Rural Electric Equipment Co.
Canton, Pa.



"MAXIM" ELECTRIC RADIATOR

Gives Clean, Healthful Heat

Light, Portable and Popular.
Glowing coils.
13" high, 7" wide.
Cord and Socket Plug.
Weight 3½ lbs.
660 Watts.

Operates from any Lamp Socket.

List Price \$8.50

Costs no more to operate than any ordinary Electric Flat Iron.

Maxim Electric Corporation
262 Canal Street, New York

"AGENTS and SALESMEN"

Live salesmen in all electrical commodities can be located through the

"SEARCHLIGHT SECTION"

For Rates See Page 164

If you desire an agency or sales connections, use these columns.

5 cents a word.

Minimum \$1.50 an insertion.

— RUST — WOODROWASHER — PROOF —

MORE Than Just a Washing Machine

When you sell the Woodrow Washer you sell much more than a combination of motor, tub and wringer.

In the Woodrow you sell a Washer that provides conveniences that are not found on any other machine—such as the Self Tilting Tub.

These unusual labor-saving features enable you to make an impressive and convincing demonstration of the Woodrow.



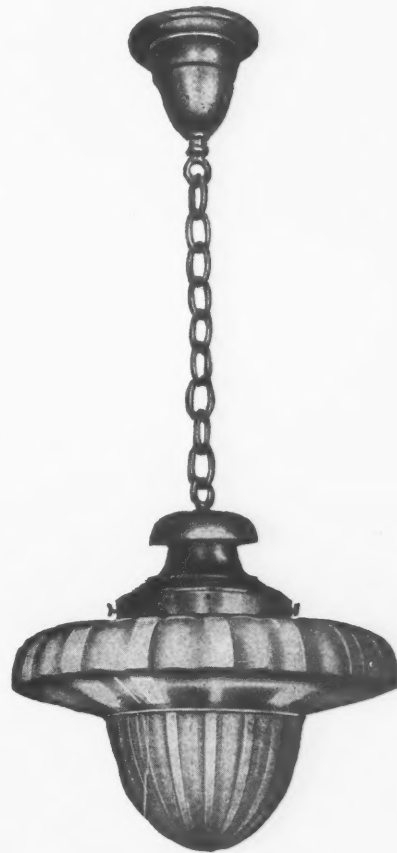
The Woodrow line consists of three electric models, all of the bench type, in both single and double-tub designs.

Woodrow Washers are built by men who have been making electric washers since their inception.

With each Woodrow Washer goes our Unlimited Guarantee—a guarantee that stands for the life of the machine.

Write today for our illustrated catalog, and learn all the particulars about the Woodrow.

Woodrow Mfg, Co.
Newton, Iowa



Get Your Share of This Profit Harvest

FROM one end of the land to the other retail merchants are making extensive improvements and alterations in their stores. Investigation shows that eight out of every ten are interested in modern lighting equipment.

THE SA-LITE

will bring you profitable commercial lighting business in your community. It embodies every feature essential to good store and office lighting—Efficiency, Moderate Price and Low Maintenance Cost.

Write for Illustrated Folder

describing the exclusive features of the Sa-Lite. It shows why this unit is leading the field for store and office lighting—why Sa-Lites will bring you profitable business NOW.

Our new Catalog No. 22—showing standardized fixtures and standardized finishes for prompt shipment—is ready for distribution. Ask for YOUR copy.

SHAPIRO & ARONSON, Inc.
20 Warren Street, New York City

SHAWMUT

Renewable Fuses

When you take this fuse in your hand, see how easily it can be taken apart and realize the worth of each part, you know why it has earned the name of "The Quality Renewable Fuse."

Other "SHAWMUT" products are approved enclosed fuses, enclosed fuse cutouts, fuse wire and ribbon, ground connection clamps, cushioning stage pockets and plugs, Boston metal cable clips.

Write for catalog No. 125 M showing the complete line:



Condit Electrical Mfg. Company

Chase-Shawmut Dept.

Sole Selling Agents

617 First Street, South Boston, Mass.



COMPLETE THE JOB OFFICE - FACTORY - HOME



THE ADJUSTABLE

FAN

HEATER

HANGER OUTLET

THIS modern convenience, built right into the wall while the building is under construction makes thorough provision for the Fan or Heater installation and a ready outlet for various Electrical Devices. And this without marring the appearance of your walls.

Neat, compact and substantial, the F. A. Patent Adjustable Hanger Outlet sets flush with the wall surface, making the mounting and dismantling of fans and heaters a simple matter.

It obviates the danger and ugly appearance which mark the ordinary fan installation.

Outside cover 5" x 5" of finished brass with receptacle for standard interchangeable plug. Fan is attached by 1 1/4 inch steel machine thread bolt with nut and washer.

A special feature makes it easy to plumb outside face cover by merely loosening screws and adjusting inside plate.

OUR TERMS AND BULLETIN, fully describing the F. A. Patent Adjustable Hanger Outlet will be SENT YOU ON REQUEST.

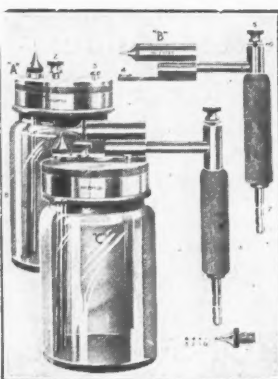
Frank Adam Electric Co.
ST. LOUIS, U.S.A.

THE COAL AND IRON NATIONAL BANK

of the City of New York
OFFICERS

John T. Sproull	President
David Taylor	Vice-President
Allison Dodd	Vice-President
Addison H. Day	Cashier
William H. Jaquith	Asst-Cashier
Wallace A. Gray	Asst-Cashier
Arthur A. G. Luders	Trust-Officer

Any of the above officers will be glad to fully explain our Banking Facilities and to place them at your disposal.



Pat. Jan. 4, 1916.

The Crown Air Brush

EXCELS in
Simplicity of operation
Stability of manufacture
This

with its interchangeable feature makes it worthy of your investigation.

Write for Descriptive Matter

Manufactured by
B. E. HOLTON CO.
1007 S. Figueroa St.
LOS ANGELES, CAL.

HELP SAVE A LIFE!

AMERICAN RED CROSS
MERRY CHRISTMAS



BUY AND USE RED CROSS
CHRISTMAS SEALS

APPLIANCE

SUPPLY

4 in 1

Tri-City Service

For your benefit we have combined four departments namely—Appliance, Supply, Apparatus and Lamp into one big business.


This enables us to give you unequalled service. It enables you to increase your sales by giving your customers better service.

Quick action service gets business and we are prepared to give it to you. Try us.

TRI-CITY ELECTRIC CO.
18-20 Mechanic St.
Newark, N. J.

APPARATUS


LAMP



Art, Quality and Variety
in Lighting Fixtures

—designed with skill
—built with care
—and a style to conform with the
ideas of every buyer of high class fixtures
for Home or Office.

E. P. GLEASON MFG. COMPANY
37-39 Murray St., New York



UNIVERSAL FUSE AND CIRCUIT TESTER


UNIVERSAL in all the name implies—can be used for testing of all alternating or direct current circuits from 110 to 600 volts. Can also be used for locating open or short circuits, grounds, blown fuses, or any other trouble occurring in lighting or power lines.

The Universal Tester forever eliminates the costly, cumbersome and dangerous "lamp bank." It provides an economical, safe and serviceable device that can be carried in the pocket. It is Amateur Proof—always set for testing 600 volts—safe even if the push-button should be accidentally pressed.

Write for prices and further information.

THE WHITALL ENGINEERING CO.
WATERBURY, CONN.

CLIFTON QUALITY TAPE



THE tape to use for every kind of installation. Clifton Quality thru and thru—the same goodness that has made Clifton Conduit the best bet with wise Contractors.

Write for samples and prices.

CLIFTON MFG. CO.
65 Brookside Ave. Boston, Mass.



EAGLE

Renewed Tungsten Lamps

The lamp for today—and every day, where medium or low priced lamps are used.

And their first cost is comparable to that of new carbons.

We can take care of your requirements fully and promptly.

Boston-Economy Lamp Division

National Lamp Works of General Electric Co.
43 Hospital St. Providence, R. I.

Boudoir Lamps



Charming grace and harmony of design are features of the "Pittsburgh" line of Boudoir Lamps. Pleasing in appearance, efficient and practical, they prove ready sellers.

The experience of years in the illuminating field is built into every "Pittsburgh" lamp, portable and lighting unit.

Write us for complete details of our whole line—table, floor and boudoir lamps, lighting units and illuminating glassware.

It will pay you to feature the "Pittsburgh" line.



Manufacturers of the celebrated
"Pilabrago" Illuminating Glassware.

Pittsburgh Lamp, Brass & Glass Co.

Dept. 21
Pittsburgh, Pa.

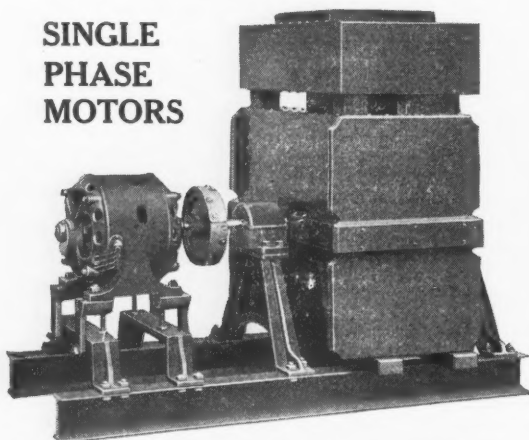


QUIET OPERATION OF

Century

Repulsion Start Induction

SINGLE
PHASE
MOTORS



makes them particularly desirable for operating equipment in public buildings, schools, churches, etc.

1/10 to 40 Horse Power

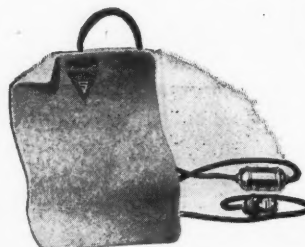
Century Electric Company

ST. LOUIS, U. S. A.

Sales Offices in Principal Cities

The STERLING

Electric Heating Pad



Will stand a large overload. Laboratory tests have proven that "Sterling" Pads will run in an airtight receptacle continuously for months on a 220-volt line and with a 20-volt overload without injury.

The compound thermostat or "heart" of the Sterling pad can be absolutely depended upon to give long and perfect service. In fact, NOT ONE Sterling Pad has ever been returned to us on account of a faulty thermostat.

The heating unit is cushioned in a way to remove all direct bending strain. This insures long life.

Each pad is equipped with a perfect 3-heat switch. At any temperature the heat is evenly distributed and not by "zones" as in many pads.

Flexible as a piece of cloth and can be folded, crushed or bent and abused without damage.

The Sterling Pad has yet to find its superior in quality or its equal in money value. Yet it is reasonably priced.

If you value your customers, sell them the best.

Domestic and Export Sales Division

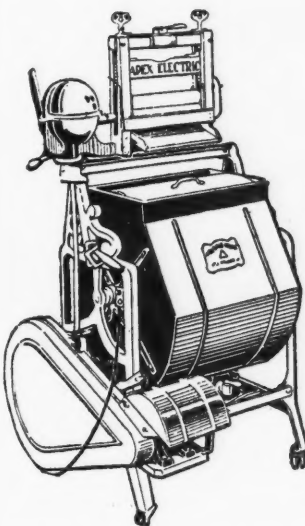
STERLING ELECTRICAL CORPORATION

1274 W. 3rd Street

Cleveland, Oh.
io

**The Easiest Seller
The Real
Profit Producer**

APEX ELECTRIC WASHING MACHINE



The great Apex sales record of the past year is sure to be surpassed in the coming months, because—

It is to be nationally advertised.

Every user is a "Booster."

It is still the lowest in price.

The washing principle is the best ever devised.

Our "Exclusive Territory Plan" protects the Dealer.

It pays to handle the Apex. Send for proposition.

FRANK H. STEWART ELECTRIC CO.,

Selling Agents

37 & 39 North Seventh St., Philadelphia, Penna.

RUBBER INSULATED WIRES AND CABLES



**National Electrical Code Standard
Intermediate (Red) Thirty Per Cent.**

Wire built under the direct supervision of experienced engineers, skillfully and honestly manufactured with one purpose and result.

Continuous Service

A-A WIRE CO., Inc.

Factory—Newark, N. J.

Sales Offices: 50 East 42nd Street,
New York City.

FINISH THE YEAR RIGHT

Now for the final spurt!

Let's keep speeding up the sales of home and office electrical labor-saving appliances until 1919 goes out in a blaze of holiday merchandising records.

You can do it.

You can finish the year right.

Electric Merchandising will help you.

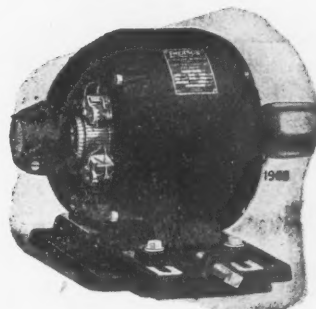
Here is our special end of the year offer: We will send you FREE the issues of October, November and December, 1919, and enter your subscription to commence with the January 1920 issue, if you send in your order NOW.

Electrical Merchandising

Tenth Avenue at 36th Street, New York City

Emerson Small Motors

1/200 hp. to 2 hp.



**Single Phase Motors
Multiphase Motors
Direct Current Motors**

A great variety of frames regularly carried in stock.

Special types developed to meet special needs.

Bulletins and price book on request to those purchasing for resale.

The Emerson Electric Mfg. Co.

2032 Washington Ave., St. Louis, Mo.

Eastern Office: 50 Church St., New York City

A *Reco* FLASHER IS THE HEART OF A SIGN



It not only increases the effectiveness of a sign immeasurably but actually saves from 25% to 50% of the cost of current.

Reco Color Hoods Solve the Color Problem Perfectly



Show rich and beautiful effects.

Made of of natural colored blown glass, never fade or wear out.

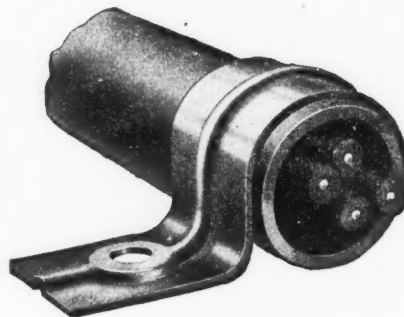
REYNOLDS
ELECTRIC COMPANY

2650 W. Congress St., Chicago, Ill.

New York Distributors:

W. F. Irish Co., 130 W. 32nd St., New York City

JIFFY CLIPS



ONLY ONE BOLT OR SCREW

Rigid, Strong and Light.

Better than pipe straps
to hold cable, conduit or pipe.

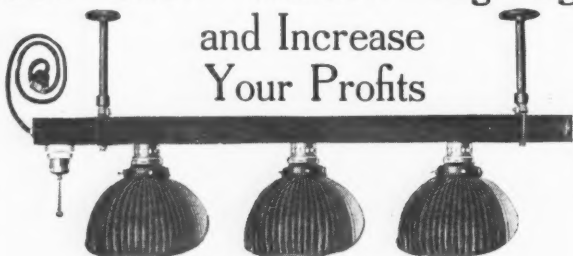
Galvanized only.

Your jobber has them

MINERALLAC ELECTRIC COMPANY

Washington Blvd. at Curtis St., Chicago, Ill.

Sell Show Window Lighting and Increase Your Profits



READY TO INSTALL

System of wiring for show window lighting as illustrated:

- 1—Comes to you all ready to install.
- 2—Portable, easy to put up, taken down or moved.
- 3—Insures correct position of reflector
- 4—Low in cost yet mechanically and electrically correct.
- 5—Neat in appearance.
- 6—Saves in labor cost 20% to 40%.
- 7—Approved by Board of Fire Underwriters.

Here is a system of maximum simplicity and convenience at a minimum cost. Good profits for dealers who handle Ready-to-Install and Pittsburgh window reflectors "The silver plated line."

SEND FOR FULL INFORMATION.

Frederick A. Watkins

District Sales Agent
Pittsburgh Reflector & Illuminating Company
567 W. Washington St. Chicago, Ill.

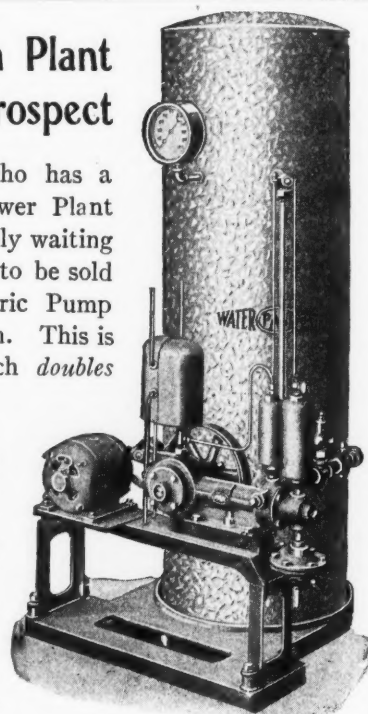
"Better Buy Pittsburgh Reflectors and Have the Best."

Every Farm Plant is a Live Prospect

The Farmer who has a Lighting and Power Plant in his home, is only waiting a demonstration, to be sold the PAUL Electric Pump and Water System. This is an easy sale which *doubles the dealer's profit.*

PAUL Electric Pumps and Water Systems are made in every size and design to meet any farm requirement. Every pump has a built-in quality, insuring its continued satisfactory performance.

Write today for details on "Paul" Electric Pumps. Get our Dealer proposition for your territory.



Let us send you details today. Our Dealer Proposition will interest you.

Fort Wayne Engineering & Manufacturing Co.

1708 Harrison St., Fort Wayne, Indiana.

**THE ONLY
SCREW HOLES
IN THE WORLD**



You drive the screw holes with a hammer in any material.
The screw holes are made for wood screws or machine screws to fit all sizes of screws. The head is removed and you leave a permanent screw hole.

The Stine Screw Holes Co.
Manufacturers
WATERBURY, CONN., U. S. A.
DEPARTMENT 34

Once a Screw Hole, Always a Screw Hole

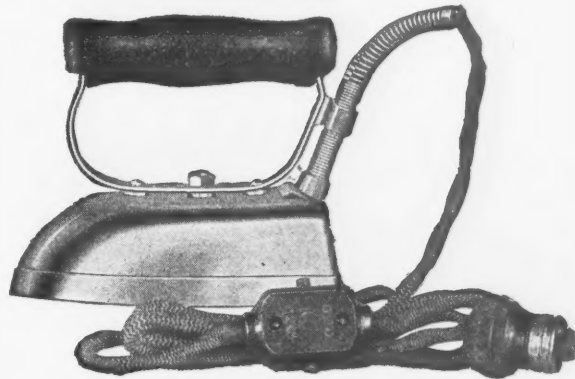
Some of the Reasons Why Screw Holes Will Be Bought and Used and Not Become Dead Stock for Anyone

- 1—They can be used without damage to receiving material.
- 2—They enable you to standardize to wood or machine screws in all material.
- 3—They are made of brass and will not rust under atmospheric or moisture conditions.
- 4—ECONOMY—They save more time value than the holes cost.
- 5—You get them for nothing and are paid for using them when you count time saved.
- 6—Screw holes have been needed ever since the first screw was used.
- 7—Special tools are NOT needed in using them in any material.
- 8—They can be used in any place a screw can be used.
- 9—By using screw holes, screws can be used in many places, and in many materials where it is impossible to use screws without them.
- 10—These are the only ready-made screw holes in the world.
- 11—No special screws are needed. These screw holes fit any wood screw or machine screw now in stock.
- 12—They make the neatest possible job in any material.
- 13—Every store where screws are sold must carry them in stock, because the line of screws is not complete without screw holes for them.
- 14—Every shop and factory where screws are used must also have these screw holes to fit the screws.
- 15—They are endorsed by all dealers in screws and by all users of screws.
- 16—Screw holes are entirely new and the world supply is yet to be furnished.
- 17—This is a progressive Old World of ours, and every active person in it must adopt all improved methods, and all new articles that will help him keep in the front line of progress.
- 18—Be among the first to stock up in screw holes if you are a dealer in screws.
- 19—Be among the first to install screw holes in your shop or factory, as you begin to save money soon as you use them.
- 20—In spite of the high cost of brass, screw holes are yet cheap.
- 21—We are letting the world know that screw holes can now be secured, by means of extensive advertising in all the principal Trade Journals that have the largest circulation among dealers in screws as well as users of screws.
- 22—Do not let your customer ask you for screw holes before you have them in stock. BE A LIVE WIRE.
- 23—They make everlasting holes in any material.
- 24—They mean "Plug-No-More" screw holes.
- 25—They are the result of Necessity being The Mother of Invention.
- 26—Anyone who can drive a nail can use screw holes.
- 27—Send for a sample and convince yourself.
- 28—Mechanics who see them say, "What do you think of that?"
- 29—In fact there are NO REASONS why screw holes should NOT be used.

Each of these reasons are enough to sell Screw Holes. There are many other reasons.
Write at once for our handsome Color Card showing screw holes in various materials which will be sent on request, together with samples and price list.

The New Dover

No. 675



Eliminate competition, sell Dover Electric Irons. Every Dover equipped with the famous NO-BURN-OUT heating element—Gold Medal Winner.

Special—With the Dover you receive a combination stove stand and curling-iron heater.

If you are not already a Dover Dealer, here is a timely tip.

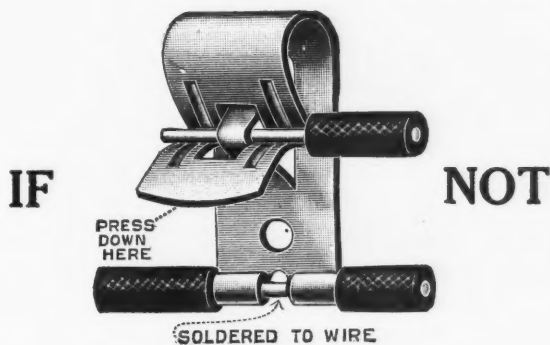
The Dover Mfg Co., Dover, O.

Branch Offices:

No. 30 Church St.
New York, N. Y.

16 Ames
Cambridge "A", Boston, Mass.

Are You Well Connected?



Write

Fahnestock Electric Co.

Wire Connectors

Long Island City

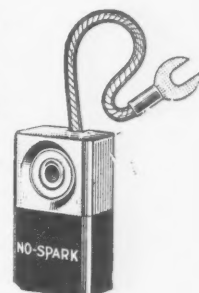
Tell 'em Why NO-SPARK brushes are better

If a doctor cures you of a serious illness, you naturally have faith in him.

*The
Lubrication
Lasts*

If you have brush troubles and we prove to you that NO-SPARK brushes will cure it, you will have faith in them too.

We've cured the ills of many a motor with NO-SPARK which quickly tame spitting and sparking motors if given a chance—if you know of some specially unruly ones, let our Engineering Dep't. take the responsibility of the cure—you can't lose—That's why.



Get the Calebaugh Catalog and our proposition to dealers and contractors

**Calebaugh
Self-Lubricating Carbon Co.**

(Incorporated)

1503 Columbia Ave., Philadelphia

LAMP SHADE

We make:

Lamp shade Accessories and we deliver them *immediately*.

Our line includes:

Silk Fringe
Chenille Fringe
Chenille Tassels
Silk Tassels
Lamp Pulls
Silk Cords
Tinsel Cords

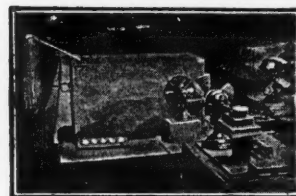
Samples sent on request

Open orders solicited

HIRSCHBERG SCHULTZ & CO.,
29 East 21st Street,
New York City

ACCESSORIES

POSITIVE PROOF



of the efficiency of any electrical device is determined by a thorough test in our laboratories. Our authoritative and impartial report protects you and the customer.

Let us establish this *positive proof* for you.

ELECTRICAL TESTING LABORATORIES
80th Street and East End Avenue, New York City



DEPENDABLE

N. E. Code (non-refillable)

and PLUG FUSES

Osterhout reliability is the result of accurate rating and years of specialization.

Exclusive territory open.

Osterhout Electric Co.

1013 Race Street,
PHILADELPHIA



In War or Peace Times—

Cut Out the Waste!

Clean up! Do it NOW!
Do it Regularly! Every
piece of Idle Equipment,
Unnecessary Material or
Scrap represents WASTE!

waste { **Money!**
Time!
Space!
Labor!
Material!

—the *money* such equipment or material cost earns nothing and is not available for other use.

—the *time* it is idle is wasted when it can render service elsewhere.

—the *space* it occupies costs money and may be needed for other purposes.

—the *labor* of its manufacture is wasted and also the labor of producing a duplicate for the man who can use it.

—the *material* it represents would be useful in another form.

Cut out *all* this waste! Don't have material or equipment around that is not needed. Turn it into cash.

There is always a market for either scrap or good used machinery. Conservation of both materials and machinery can be practiced with just as much profit in peace as in war times.

Buyers for surplus material, good used machinery, junk or scrap can easily be found through the

**Searchlight
Section**

ELLINGTON

SMALL MOTORS

"The motor built around the switch"

Ellington Motors are sturdily built to meet the many exacting requirements in *small motor* construction. In addition to this they have a pleasing appearance, being finished in black enamel with nickel trimmings.

Ellington Motors are made in sizes from $\frac{1}{2}$ to $\frac{1}{3}$ H.P.

They have proved themselves more than satisfactory in operating washing machines, vacuum cleaners, meat choppers, coffee grinders, addressing machines, small grinders and such other devices used in the home, office, store or factory.

Ellington Products

Charging Apparatus for
Pleasure Vehicles
Commercial Vehicles
Service Stations
A.C. Split Phase Motors
A.C. Repulsion Motors
A.C. Polyphase Motors
Direct Current Motors

Our *Small Motor Catalog* will interest you.

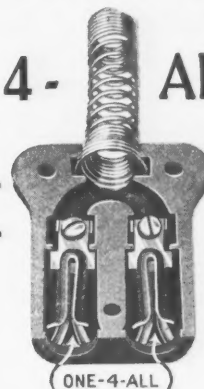
A card will bring it.

Write today.

The Ellington Electric Co.
Quincy Ill.

PERFECT CONTACT PROPP'S

ONE-4-ALL PLUG



PROPP'S ONE-4-ALL IRON PLUG is designed to fit any set of contact points on any electric appliance.

Has ample carrying capacity and makes perfect contact.

Flexible spring locking into heat resisting compound saves the cord.

Put up in unit carton—10; Std. pkg.—250; List price—60c.

Write for folder of all Propp Products.

Specify and order thru your distributor.

The M. Propp Company

Manufacturers 108 Bowery, New York City

MAKE YOUR STORE HEADQUARTERS FOR WIRELESS APPARATUS

Amateurs are buying eagerly
our quality outfits

Write at once for catalog and introductory offer

REMLER RADIO MFG. CO.

163 Sutter Street

San Francisco

KLIEGL CONNECTORS

Pockets and Plugs Two and Three Wire
Capacities Up to 300 Amperes

Kliegl connectors and plugs, originally designed for the rough hard usage of theatre and stage work are made of fibre, non-breakable and practically indestructible.

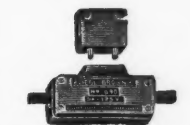
They are suitable for any circuit, especially for factory, shop, garage, outdoor work, charging plugs, are lamp circuits, welding circuits, etc., etc.

Write for a copy of our Catalog H.

**UNIVERSAL ELECTRIC STAGE
LIGHTING COMPANY**



239 West 50th St., 1 New York
Stage Lighting Engineers—Builders and Designers of everything electrical for the stage and theatre.



Branch off connectors



Ordinary two-wire
connectors



Battery Charging
connectors

Let Us Help You

with your lighting problems. Our engineering department is at your service any time. They stand ready to co-operate with you or your salesmen in gaining a reputation for knowing how to solve lighting problems.

REFLECTORS

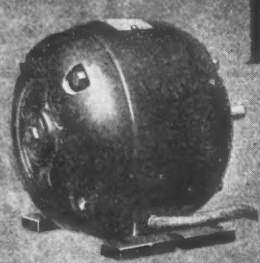
to answer any service such as Lighting Show Windows, Show Cases, Rug Racks, Pictures, Evening Rooms, Switchboards, etc.

Concealed Lighting a Specialty

Send for Catalog No. 420.

I. P. FRINK, Inc.

24th St. and 10th Ave., New York



DOMESTIC SMALL MOTORS

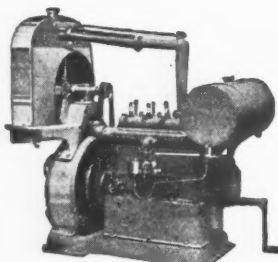
What does the term Quality applied to Small Motors mean?

It means a motor designed for the particular application on which it is used, a Motor of superior design constructed of the highest grade materials and the best workmanship.

Quality, to count, must be maintained. Quality, as defined above, is built into Domestic Motors.

DOMESTIC

THE DOMESTIC ELECTRIC CO. CLEVELAND, O.



4 K-W Electric Generating Sets

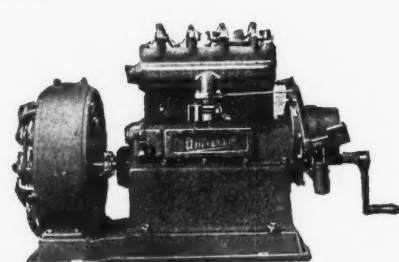
Stationary and Portable

For all purposes requiring a smooth, steady, direct current, 60 or 110 volts.

House, store, farm, boat, school, hall, church and theatre lighting, circuses, picture shows, carnivals, fairs, etc. Over a thousand in use.

Send for Bulletin No. 26.

UNIVERSAL MOTOR CO.
OSHKOSH, WIS., U. S. A.





AJAX

Plural Socket Plug

\$1.25 Each, 3 for \$3.50

The Latest Improvement.
Nothing Desirable Forgotten.
Bakelite Composition—One-Piece.
Leaves Lamp in Original Position.
Admits Use of Brass Socket Shade Holder,

DEALERS—SEE YOUR JOBBER
JOBBER—Get Our Terms

AJAX

Electric Specialty Co.
St. Louis, Mo.



Herr's E-Z Electric

Floor Scrubbing and Polishing Machine

Applies the water and grit powder while it scrubs, and is entirely automatic in operation. Thoroughly cleans all kinds of floors; very easy to operate. Extremely simple in construction. Lowest price machine of its kind on the market.

Write for our attractive proposition to Dealers.

John Herr Mfg. Co.
53 Merchants Building
Philadelphia

Established 1908



10 Days Free Trial
in Your Own Shop

will prove the economies of



The Martin Portable Vise Stand and Pipe Bender

for cutting threading and bending conduit.

Ask us to send you one—and make
your shop the proving ground.

Write today for 10 days free trial.

H. P. MARTIN & SONS
621 East Second Street
Owensboro, Ky.


"GILLETTE"

Clipping Machines and Cutters

are being sold extensively and entirely on their merits. Experience of a quarter-century in making flexible shaft Hand and Power Machines for Clipping Horses, Mules, Dogs, Cows and for shearing Sheep, Etc., has given us an expert knowledge of this art.

Grinding and repairing is our specialty.
Renewal and repair parts carried on hand.

Gillette Clipping Machine Co.
129-131 West 31st Street
NEW YORK, N. Y.
Illustrated Price List Free





KILLARK BELL RINGING TRANSFORMERS



Furnished for 25-40-50- and 60-cycle service, 125 and 250 volts. Single and tri-voltage secondaries.

Porcelain case makes it practical for use in damp cellars and in any climate.

Send for catalog.

We also manufacture Enclosed Fuses, Plug Fuses, Fuse Wire, Automobile Fuses and "Electrolet" Conduit Fittings.



Killark Electric Mfg. Co.

3940 Easton Ave.
St. Louis, Mo., U. S. A.



CADILLAC Electric Vacuum Cleaners

FOUR MODELS

Cadillac	1/6 H.P. Vertical Motor
Cadillac Reliable	1/7 H.P. Vertical Motor
Cadillac Little Ben	1/6 H.P. Horizontal Motor
Cadillac Big Ben	1/5 H.P. Horizontal Motor

All models have

Friction Driven Bristle Brush that gets the lint and thread without "whipping" the nap off the rug. Adjustable nozzle giving maximum efficiency on both long and short nap rugs. Six-blade fan moving largest amount of air.

Cadillac Electric Vacuum Cleaners are supplied with 32-volt motors suitable for farm lighting outfits without additional cost.



**Clements
Mfg. Co.**

609 Fulton St.
Chicago, Ill.

Canadian
Factory
78 Duchess St.,
Toronto, Ont.

JUST WHAT I WANT

Automatic Extension Reel

For Electric Lamps

Take your lamp with you to any part of your machine shop or garage—an automatic lock holds the lamp at any desired distance from the reel. It can't get out of order because it's professionally manufactured.

'Tisn't a half-baked proposition nor an amateur outfit—but a splendidly strong Extension Reel for men who haven't got time to bother with any nonsensical makeshift. Equipped with 25 feet of reinforced cord. It's all good quality—don't cost much either. Approved by the Underwriters.

Write for Particulars.

The Cincinnati Specialty Mfg. Co., Inc.
1913 Powers St., CINCINNATI, OHIO



THE COAL AND IRON NATIONAL BANK

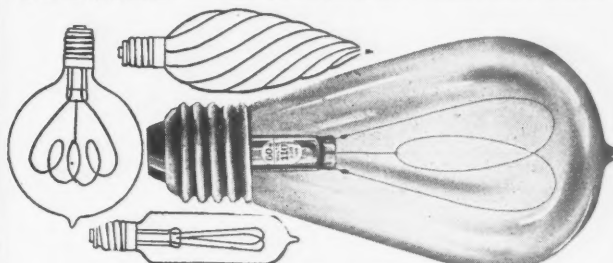
of the City of New York

Offers you a personal, profitable and helpful service—banking facilities and cooperation that will prove a definite aid in Doing Business—and in Building Business.

Any OF OUR Officers will be glad—upon request—to tell you or write you about our Service as applied to your business.

CARBON LAMPS

STANDARD—CANDELABRA—MINIATURE



PROMPT DELIVERY—LOWEST PRICES
SAFETY ELECTRIC CO.

MANUFACTURERS
537-539 NORTH DEARBORN ST., CHICAGO, ILL.



SEARCHLIGHT SECTION


Ads Set in Uniform Style

(Solid in one paragraph, without display)

THREE CENTS A WORD, minimum charge 50 cents an insertion, payable in advance, less 10 per cent. if one payment is made in advance for four continuous insertions—for advertisements under:

Positions Wanted	Vacation Work Wanted
Evening Work Wanted	Salesman Wants Connections

FIVE CENTS A WORD, minimum charge \$1.50 an insertion, for advertisement under:

Agencies Wanted	Positions Vacant
Agents Wanted	Partner Wanted
Business Opportunities	Representations Wanted
Desk Room for Rent	Salesmen Wanted
Educational	Patents for Sale
Employment Agencies	Plants for Sale
Desk Room Wanted	Sub-Contracts Wanted
Foreign Business	Work Wanted

Miscellaneous for Sale, for Rent or Want Ads.

THIRTY CENTS A LINE, minimum five lines, for all undisplayed advertisements set with a paragraph for each item or tabulated.

THREE DOLLARS AND SIXTY CENTS AN INCH for advertisements for bids (Official Proposals).

ADVERTISING RATES FOR ELECTRICAL MERCHANDISING

Ads Set in Display Type

(Individual space, within border rules)

Space for these advertisements is sold by the inch. Each page contains 30 inches. The rate per inch is based on the total number of inches to be used—that is, the number of inches the advertisement is to occupy multiplied by the number of insertions it is to receive. For instance, a 2-inch advertisement in 2 issues earns the 4-inch rate of \$2.90 an inch. A 1-inch space for 4 issues, or a 4-inch space in one issue, also earn the 4-inch rate.

Schedule of Rates

1 to 3 in., \$3.00 an in.	15 to 26 in., \$2.70 an in.
4 to 7 in., 2.90 an in.	27 to 49 in., 2.60 an in.
8 to 14 in., 2.80 an in.	50 to 99 in., 2.55 an in.

Rates for larger space furnished on request.

In Replying to Ads

DO NOT ENCLOSE original testimonials or anything that you may want returned. State your experience and qualification in as concise and neat a manner as possible and enclose copies of your testimonials.

BE CAREFUL TO PUT ON ENVELOPE, when answering any "blind" ad, the box number in the ad, the name of the paper, and also the local address of office to which reply is sent:

36th St., at 10th Ave.,	New York
935 Real Estate Trust Bldg.,	Philadelphia
533 Leader-News Bldg.,	Cleveland
1570 Old Colony Bldg.,	Chicago
501 Rialto Bldg.,	San Francisco

When Writing Copy

ALLOW FIVE WORDS for the address, if replies are to a box number in care of any of our offices. There is no extra charge for forwarding replies.

TO SIGN YOUR NAME and address to your advertisement begets the confidence of the reader and facilitates receiving replies. You can, however, obviate delay in receiving answers by signing your ad, only with initials (your own or others), care of your home, your office or a post-office box number in your city.

**POSITIONS
VACANT**

EMPLOYMENT

**POSITIONS
WANTED****POSITIONS VACANT**

ELECTRIC commercial agent for combination electric and gas company near New York City. To take charge of department. Chief sales—small motors and appliances. Please advise by letter as to experience, references and salary desired. P 142, Elec. Merch., 475 10th Ave., N. Y. C.

SALESMANAGER Wanted. Manufacturer of a nationally advertised and popular electric washing machine wants manager for branch store in Cleveland. Will pay good salary and commission. Big opportunity for right man. Give full details of previous experience and if possible enclose photograph. Applications held confidential. P-150, Elec. Merch., Leader News Bldg., Cleveland, O.

ENGINEER Wanted with practical experience to take charge of development work and designing of jigs, tools, and fixtures for manufacturing established line of fractional horse power motors with medium sized concern in middle West. State experience, salary expected, and give references. P-148, Elec. Merch., Old Colony Bldg., Chicago, Ill.

A large manufacturer of incandescent electric lamps located near New York has an excellent opening for a young man with technical electrical training whose duties will be largely to follow the commercial application of the product. Most of the work will be handled by correspondence but it will be necessary at times to go out into the field for information, in such cases dealing directly with the customer. Give complete details as to education, salary wanted, etc., in your reply. P-147, Elec. Merch.

SOUTHERN Switchboard and Panelboard Manufacturer, Wants a man familiar with the laying out and actual construction of Cabinets, Panelboards and switchboards. In answering give full information as to experience in this line of work. P-144, Elec. Merch., Old Colony Bldg., Chicago, Ill.

POSITIONS WANTED

AS Manager of High Grade Fixture Business, 15 year's experience. PW-146, Elec. Merch.

AGENTS AND SALESMEN

SALESMAN Wanted with electrical knowledge and experience as direct factory representative to travel Philadelphia Territory, calling on users of and dealers in electrical apparatus. Good opportunity for a keen, up-to-the-minute man. Give full particulars at first writing. Application confidential. Address AS-145, Elec. Merch., Leader News Bldg., Cleveland, O.

MANUFACTURER'S AGENCY wants man with 20 years' experience in selling electrical and mechanical apparatus of all kinds has just started an Agency Organization in Chicago and is looking for one or more good lines to handle. Best references. AS-149, Elec. Merch., Old Colony Bldg., Chicago, Ill.

ELECTRICAL ENGINEER

Large corporation, starting a school in Automotive Electricity, desires an Electrical Engineer as instructor. Opportunity for good man to develop his ideas in the commercial field along with his duties as instructor. Position open—must be filled at once. Chance to get it on ground floor.

P134—Electrical Merchandising
1570 Old Colony Bldg., Chicago, Ill.

PHILADELPHIA AGENCY

E. F. Hedler and John Sherman are organized for District representation of high-grade, reputable electrical specialties. Territory thoroughly covered.

HEDLER & SHERMAN CO.
Widener Bldg., Philadelphia, Pa.

Keep Your Eyes on SEARCHLIGHT and your Ad in it



MANUFACTURER'S ATTENTION

Do you wish high class representation on the Pacific Coast without the usual overhead expense attached to a branch office?

Am prepared to negotiate with manufacturers of meritorious electrical appliances for distribution in this territory, upon a strictly commission basis; giving all the service of a branch office.

Competent sales force established to cover the territory. Specialty salesmen supplied the jobber to assist in introducing our lines. Resales organization, advertising and sales plans supplied department stores and retailers.

This is an opportunity to take advantage of my acquaintance with dealers, territory and trade conditions on the Pacific Coast.

References relative to ability and financial responsibility furnished. Only quality products considered. If proposition justifies can visit factory to complete arrangements for representation.

C. F. HENDERSON

685 Geary Street, San Francisco, Cal.

FOR SALE

McGraw List of Electrical Dealers, Contractors and Jobbers for 1918

This book contains the names of approximately 15,000 individuals and companies retailing electrical appliances and doing electrical contracting, and about 320 jobbers.

Some of the companies have gone out of business since the book was published, but much of the information still has value. It is the only work of its kind, and there will be no further editions. The 1918 edition was published to sell at \$10. We will close out the copies on hand at \$5 each.

McGraw-Hill Company, Inc.

Directory Department

10th Ave. at 36th St., New York

Generating Unit

1—11 x 12 Fleming-Harrisburg simple standard piston valve engine direct connected to 62½-kva. Westinghouse type EA 3-phase-60-cycle 240-volt 300-r.p.m. generator, with 5-kw. 1120 r.p.m. type SK belted exciter. This unit is new, has never been uncrated and is ready for immediate delivery.

Langstadt-Meyer Company

Appleton, Wis.

**SEARCHLIGHT
SERVICE
SECURES**

**SATISFACTORY
SITUATIONS
SALES**

2001

The following subject to prior sale; the entire quantity at 34c per pound:

MAGNET WIRE

410 lbs. .145 x .210 D. C. C. Magnet Wire.
484 lbs. .055 x .185 D. C. C. Magnet Wire.
244 lbs. .058 x .195 D. C. C. Magnet Wire.

THE POST-GLOVER ELECTRIC CO.,
Cincinnati, Ohio

When you want Men

Put your advertising for
them on the same basis
as other publicity.

If you want competent and efficient assistants, experienced in the field served by this journal, you will naturally find such men among our readers—which include the keenest and most progressive men in the industry.

Get in touch with a number of these men and select the one that is best suited for your needs.

Only \$1.50 for 30 words

401

Electric Motors and—

Motor-driven Grinders
and Polishers, Exhaust
Fans and Blowers, Air
Compressors and Special
Tools.

Reliable Electric Motor Co., Inc.

165-7 Grand Street
New York City





GET IT FROM GREGORY

NEW OR SECOND-HAND

The Gregory reputation as representative **electrical machinery merchants** extends to every part of the world wherever electrical current is available.

Our immense warehouse and repair shops are completely equipped with switch tracks, electric traveling cranes, light, heat and power plants, and every possible labor saving device.

While we pay our men the same rate per hour in wages, as our smaller competitors, we take fewer hours to do the work, and our cost of repairing the used machines we sell, or those belonging to customers, is smaller.

It will always pay to "Get it from Gregory."

Send for our "Monthly Bargain Sheet" showing complete stock list and net prices.

Three Phase, 60 Cycle A. C. Motors 220 or 440 Volts			Three Phase 60 Cycle A. C. Motors 220 or 440 volts			220 Volt D. C. Motors				
H.P.		Speed	H.P.		Speed	H.P.		Speed		
1	1/2	Jenney.....	120	1	20	Westinghouse, type F, slip-	1	3	Western Electric.....	1025
1	1/2	Watson, slip-ring, variable				ring, 220 or 440 v., constant	1	3	Crocker-Wheeler.....	975
		speed.....	1140-570			speed, with starter.....	1	4	General Electric, crane or hoist	
1	1/2	U. S. portable electric drill		2	25	Fairbanks-Morse.....			motor.....	800
		for taper shank drills up to		1	25	Westinghouse.....	1	5	Crocker-Wheeler.....	1850
		1 inch, drill speed.....	180	4	25	General Electric.....	1	5	Robbins & Myers.....	1040
1	3/4	Watson.....	1120	2	30	General Electric, 220 or 440	1	5	Gibbs.....	935
2	3/4	Kimble.....	1160			v., new.....	1	5	Crocker-Wheeler, comp.....	900
2	3/4	Kimble, slip-ring, variable		1	30	General Electric, form K, 2200	1	5	Westinghouse, comp., variable	
		speed.....	1160			volts.....			speed.....	875-1450
1	1	Western Electric.....	1800	1	35	Westinghouse, type CS, 220 v.....	1	5	Watson.....	850
1	1	General Electric.....	1800	1	60	General Electric, type I, form	10	5	Colonial.....	580
1	1	Westinghouse.....	1700			K 220 v.....	2	5	General Electric, shunt, vari-	
1	1	General Electric.....	1200	1	50	General Electric, type KT,			able speed.....	500-1500
1	2	Fairbanks-Morse.....	1800			form B, 220 or 440 v., new	1	5	Western Electric.....	370
1	2	Western Electric, new.....	1800			(40°).....	1	6	Western Electric.....	1600
1	2	Western Electric, 440 v., new.....	1800	1	50	General Electric, type I, form	1	6	Wiley.....	1275
1	2	General Electric.....	1800			M, slip-ring, constant speed,	1	7 1/2	Northern.....	1450
1	2	Westinghouse.....	1720			with starter.....	1	7 1/2	Browning.....	1440
1	2	Fairbanks-Morse.....	1200	1	50	Westinghouse.....	1	7 1/2	Watson.....	1350
1	2	Western Electric.....	1200	1	50	Westinghouse, type CI, slip-	1	7 1/2	National.....	975
1	2	General Electric.....	1135			ring, 440 v., variable speed.....	1	7 1/2	Westinghouse, comp.....	975
3	3	General Electric.....	1800	1	125	General Electric.....	2	7 1/2	Allis-Chalmers.....	875
2	3	Western Electric, 220 v., new.....	1800	1	150	General Electric, form L, (wound	1	7 1/2	Westinghouse, comp.....	550
1	3	Western Electric, 440 v., new.....	1800			rotor).....	2	7 1/2	Browning.....	450
1	3	Western Electric, Platt Iron		2	150	Westinghouse, type CCL, 2200	1	7 1/2	Sprague-Lundell, printing-press	
		Works single-stage centri-				v.....			motor.....	140
		fugal pump (capacity 50		3	200	General Electric, synchronous,	1	10	C. and C.....	1375
		gals. per min., 40-foot head).....	1800			2200 volts.....	2	10	Westinghouse.....	1325
7	3	Watson.....	1140	1	250	Westinghouse.....	1	10	Jenney.....	1060
1	5	Fairbanks-Morse.....	1800				1	10	Cincinnati.....	900
1	5	Western Electric, 220 v., new.....	1800				1	10	National.....	850
1	5	Western Electric, 440 v., new.....	1800				1	10	Westinghouse.....	750
1	5	Howell.....	1800				1	10	Crocker-Wheeler, variable speed	
1	5	Westinghouse, new.....	1735						720-1200	
1	5	Crocker-Wheeler.....	1720	1	1 1/4	Globe, 110 v.....	1	12	Western Electric.....	1200
1	5	General Electric.....	1200	1	1	Holtzer-Cabot, type OP, 110 or	3	13	Crocker-Wheeler.....	1100
1	5	Western Electric, 220 v., new.....	1200			220 v.....	1	13	Westinghouse.....	630
2	5	Western Electric, 440 v., new.....	1200	1	2	General Electric, type KT,	2	15	Browning.....	900
1	5	Howell.....	900	1	3	Kimble, type KE, Model BJ,	1	15	Jenney.....	850
1	7 1/2	Western Electric, 220 v., new.....	1800			440 v., slip-ring, variable	1	15	Crocker-Wheeler.....	800
2	7 1/2	Howell (nearly new).....	1800			speed, new, shopworn, with-	1	15	Western Electric, series, crane	
1	7 1/2	Howell, new.....	1800			out controller.....			or hoist motor (double shaft	
1	7 1/2	Howell.....	1200	4	10	Westinghouse, type CCL, 220			extension).....	700
1	7 1/2	Howell.....	1200			or 440 v.....	2	15	General Electric.....	650
1	7 1/2	Lincoln.....	1200	1	15	Richmond, type RE, 220 v.....	1	15	Triumph.....	520
1	7 1/2	Westinghouse.....	1120	1	35	General Electric, form K, 220	1	17	Crocker-Wheeler, variable speed	
1	7 1/2	Howell.....	900			or 440 v.....			700-1400	
1	10	Western Electric.....	1800	1	40	Westinghouse, type CCL, 220	1	25	Crocker-Wheeler.....	750
1	10	Howell, new.....	1800			or 440 v.....	2	25	Westinghouse, series crane or	
7	10	Triumph (wound rotor).....	1750						hoisting motors.....	500
1	10	Westinghouse.....	1740				1	25	Westinghouse.....	400
1	10	Fairbanks-Morse.....	1200				1	30	Westinghouse.....	600
2	10	Howell.....	1200				2	30	Westinghouse.....	575
2	10	Western Electric, 220 v., new.....	1200				1	35	Allis-Chalmers.....	1150
1	10	Western Electric, 220 v., new.....	900				1	35	Westinghouse, series, crane or	
1	10	Westinghouse, type F, slip-							hoisting motor.....	550
		ring, variable speed.....	850				1	35	General Electric, comp., in-	
1	10	General Electric, type MT, 220							terpole, variable.....	375-850
		volt, var. speed (continuous					1	40	Sprague, interpole, variable speed	
		duty), slip-ring.....	600						650-900	
1	15	Howell.....	1800	1	1	General Electric.....	1	40	Northern.....	550
3	15	Triumph (wound rotor).....	1750	2	1	General Electric.....	1	40	National MP.....	550
1	15	General Electric, vertical.....	1200	1	1	Watson.....	1	40	Westinghouse.....	500
1	15	Howell, new.....	1200	1	1	General Electric.....	1	40	Holtzer-Cabot.....	825
1	15	Howell.....	900	1	1 1/4	Jenney, double-reduction, back-	1	50	National, MP.....	750
1	15	General Electric, 2200 volts.....	900			geared.....	1	50	Allis-Chalmers.....	550
1	15	Westinghouse, type F, slip-		1	2	Westinghouse.....	1	50	Westinghouse.....	525
		ring, variable speed.....	840	1	2	Roth.....	1	50	Westinghouse.....	450
1	15	General Electric, form L, 2200		1	2 1/2	Watson.....	1	65	C. & C.....	525
1	15	General Electric, 2200 volts.....	600	1	2 1/2	General Electric.....	1	75	Allis-Chalmers.....	725
1	15	Allis-Chalmers, continuous duty,				900	1	75	Northern.....	450
		220 or 440 v., slip-ring, variable				490-650	1	75	Northern.....	400
		speed.....	600			850	4	75	Allis-Chalmers.....	325
1	18	General Electric, slip-ring, vari-		1	3	General Electric.....	1	90	General Electric, shunt, inter-	
		able speed.....	670	1	3	Watson.....			pole, variable speed.....	300-400
1	20	Howell.....	1200	6	3	Western Electric.....	1	125	Westinghouse.....	275
1	20	General Electric, new (40°).....	900	1	3	Westinghouse.....	3	150	Allis-Chalmers.....	650
1	20	Howell, new.....	900	2	3	Holtzer-Cabot.....	1	200	Ft. Wayne, 6-pole comp., in-	
1	20	General Electric, 2200 volts.....	900			1525			terpole.....	500
2	20	Westinghouse, 2200 v.....	870	2	3	Westinghouse.....				
				1	3	Fairbanks-Morse.....				
						1400				

GREGORY
ELECTRIC CO.
CHICAGO, ILLINOIS

American Headquarters for Second-Hand Electrical Machinery

"Get it from your nearest Jobber"

Where to Get What's Selling Strong—

AND WE ARE SHIPPING PROMPTLY FROM
ASHEVILLE WAREHOUSE—

A. B. C. Super Electric Washers,
Peco Rotary Washers
Marathon O. K. Small motors
Piedmont New Home Electric Sewing Machines.
Peco Motor Driven Churns
Hamilton Beach Appliances

Piedmont
ELECTRIC CO.
ASHEVILLE, N. C.

NEW JERSEY



LOUISIANA

**WOODWARD,
WIGHT & CO., Ltd.**

General Electric Co.'s
Apparatus and Supplies
and
Complete Stocks of
other standard lines.

NEW ORLEANS



DISTRICT OF COLUMBIA

**National Electrical
Supply Company**

Jobbers and Manufacturers

**ELECTRICAL AND
AUTOMOBILE SUPPLIES**

1328-1330 NEW YORK AVENUE
WASHINGTON, D. C.

TENNESSEE

Electric Supply Co.
Memphis, Tenn.
Representing

General Electric Co.
Phillips Insulated Wire Co.
Hotpoint Electric Heating Co.
Edison Mazda Lamps

and other standard lines

Wholesale Only

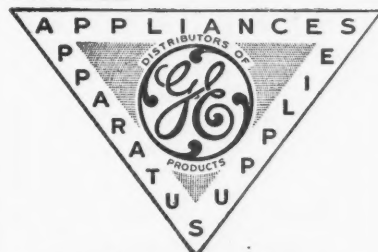
OHIO

ERNER SERVICE
Earns Your Orders

Electrical Appliances
Supplies
and
Motors

THE ERNER ELECTRIC CO.
CLEVELAND, OHIO

NEW JERSEY



Serving New Jersey

N. J. Jobbers of G. E.
Supplies and Equipment

Tri-City Electric Co., Inc.
Main Office 18-20 Mechanic St., Newark, N. J.

PENNSYLVANIA AND DISTRICT OF COLUMBIA

**DOUBLEDAY-HILL
ELECTRIC CO.**
Wholesale Electrical Supplies

Large Stock
"I.X.L." Rubber Covered and W. P. Wires
Benjamin Specialties
Hubbell Specialties
Arrow E Specialties
G. E. Mazda Lamps
Manning-Bowman Heating Devices
Crystal Washing Machines
Sweeper-Vac Cleaners
Simplex Ironing Machines
Gould Storage Batteries, etc.

Warehouses at

Washington, D. C. and
Pittsburgh, Pa.

MICHIGAN

Great Lakes Electric Co.
(Formerly General Supply Co.)
WHOLESALE

NO RETAIL
AT ANY PRICE



PROMPT ATTEN-
TION TO
MAIL ORDERS

227 E. JEFFERSON
DETROIT

113 CHAMPLAIN
CLEVELAND

MICHIGAN

**A. T. Knowlson
Company**

Wholesale Electrical Supplies
99-101-103 Congress Street East
Detroit

Dependable Goods

Fair Prices

Prompt and Efficient Service

A BUSINESS ASSET

Has every member of
your concern his own
personal copy of

**ELECTRICAL
MERCHANDISING?**

WHAT AND WHERE TO BUY

Electrical Appliances and Supplies Advertised in This Issue with Names of Manufacturers and Distributors

Accessories, Lamp

Anyrite Electric Co.

Air Compressors, Electric

Black & Decker Mfg. Co.

Alarms, Fire

Edwards & Co.

Annunciators

Edwards & Co.

Automobile Accessories, ElectricAnderson Electric Specialty Co.
Johns-Manville Co., H. W.
Hubbell, Inc., Harvey**Batteries, Dry**American Ever Ready Works
Berry, A. Hall
Delta Electric Co.
ReNu Batteries Inc.
Stuart Products Corp.
Usona Mfg. Co.
Western Electric Co.**Battery Charging Equipment**Cutler-Hammer Mfg. Co.
Ellington Electric Co.
General Electric Co.**Bell Ringing Transformers**Betts & Betts Corp.
General Electric Co.**Bells and Buzzers**

Edwards & Co.

Benders, Conduit

Martin & Sons, H. P.

Books, Electrical and Technical

McGraw-Hill Book Co.

Boxes, FuseGeneral Electric Co.
Johns-Manville Co., H. W.**Boxes, Grounding**Philadelphia Electric Company,
Supply Dept.**Boxes, Junction and Outlet**Appleton Electric Co.
D. & W. Fuse Co.
General Electric Co.
National Metal Molding Co.**Boxes, Meter and Service**Cutter Co., George
General Electric Co.
Johns-Manville Co., H. W.**Brushes**Calebaugh Self-Lubricating Carbon
Co.
General Electric Co.
Holton Co., B. E.**Bushings**Philadelphia Electric Co., Supply
Dept.**Caps—See Plugs Attachment & Caps.****Carbon Brushes**Calebaugh Self-Lubricating Carbon
Co.
General Electric Co.**Chain, Pull Socket Elec.**

Hubbell, Inc., Harvey

Chandeliers

Beardslee Chandelier Mfg. Co.

Christmas Tree Apparatus

Propp Co., M.

Circuit BreakersGeneral Electric Co.
Westinghouse El. & Mfg. Co.**Clamps, Insulator**General Electric Co.
Philadelphia Electric Company,
Supply Dept.**Cleats**General Electric Co.
Pass & Seymour, Inc.**Clipping Machine**

Gillette Clipping Machine Co.

Coils, Armature and Field

Independent Lamp & Wire Co.

Conduit FittingsAmerican Wiremold Co.
Appleton Electric Co.
General Electric Co.
Hart & Hegeman Mfg. Co.
Pass & Seymour, Inc.
Philadelphia Electric Company,
Supply Dept.**Conduit, Flexible**Berry, A. Hall
Sprague Electric Works
Tubular Woven Fabric Co.**Conduit, Interior**American Wiremold Co.
Sprague Electric Works
Tubular Woven Fabric Co.**Conduit, Rigid**American Wiremold Co.
Clifton Mfg. Co.
National Metal Molding Co.
Sprague Electric Works**Conduit, Underground (Fibre)**Johns-Manville Co., H. W.
Sprague Electric Works**Connectors, Cords & Lamp**Fahnestock Elec. Co.
Hubbell, Inc., Harvey
Sherman Mfg. Co., H. B.
Universal Electric Stage Lighting
Walger Connector Co.**Controllers, Motor**Cutler-Hammer Mfg. Co., The
General Electric Co.
Western Electric Co.
Westinghouse El. & Mfg. Co.**Cooking Appliances, Electric**American Electrical Heater Co.
Cutler-Hammer Mfg. Co., The
Edison Electric Appliance Co.
Landers, Frary & Clark
Redtop Electric Co.
Simplex Electric Heating Co.**Cord, Lamp**Generator Electric Co.
Electric Cable Co.
Rome Wire Co.**Current Taps**Ajax Elec. Specialty Co.
General Electric Co.
Hart & Hegeman Mfg. Co.
Hubbell, Inc., Harvey**Cutouts**Berry A. Hall
Condit Electrical Mfg. Co.
D. & W. Fuse Co.
General Electric Co.
Hart & Hegeman
Trumbull Electric Mfg. Co.**Distributors (See Jobbers)****Driers Hair & Hand, Electric**

Landers, Frary & Clark

Drills, Portable Electric

Black & Decker Mfg. Co.

Dryers, ElectricGeier Co., P. A.
General Electric Co.**Dynamos**Domestic Electric Co.
Dyneto Electric Co.
Emerson Electric Mfg. Co.
General Electric Co.
Robbins & Myers Co., The
Sprague Electric Works**Electrical Supplies**Appleton Electric Co.
Benjamin Electric Mfg. Co.
General Electric Co.**Extension Reels**

Cincinnati Specialty Mfg. Co., Inc.

Extinguishers, Fire

Johns-Manville Co., H. W.

Fan MotorsAdams Bagnall Electric Co.
Century Electric Co.
Dayton Fan & Motor Co.
Emerson Electric Mfg. Co.
General Electric Co.
Robbins & Myers Co., The
Sprague Electric Works
Western Electric Co.
Westinghouse El. & Mfg. Co.**Fans, Exhaust and Ventilating**Emerson Electric Mfg. Co.
General Electric Co.
Robbins & Myers Co., The
Westinghouse El. & Mfg. Co.**Farm Lighting Plants**Black Swan Co.
Delta Star Electric Co.
Drury Engineering Co.
Dyneto Electric Corp.
Electric Auto-Lite Corp.
Litscher Lite Corp.
Owen & Co., R. M.
Phelps Light & Power Co.
Rural Electric Equipment Co.
Universal Motor Co.
Universal Products Co.
Western Electric Co.**Fittings, Conduit**

American Wiremold Co.

Fittings, Fixtures

Toledo Metal Products Co.

Fixtures, LightingBeardslee Chandelier Mfg. Co.
Benjamin Electric Mfg. Co.
Cutter Co. (George)
Duplex Lighting Works
Frink, I. P.
Gleason Mfg. Co., E. P.
Livingston & Co., J.
Luminous Specialty Co.
Miller & Co., Edward
National X-Ray Reflector Co.
Peerless Light Co.
Pittsburgh Lamp, Brass & Glass Co.
Plant & Co., L.
Robbins & Myers Co., The
St. Louis Brass Mfg. Co.**Fixtures, Lighting, Show Cases and**Windows
Watkins, Frederick A.**Flashlights**American Ever Ready Works
Berry, A. Hall
Delta Electric Co.
Stuart Products Corp.
Usona Mfg. Co., Inc.**Flashers, Sign**

Reynolds Electric Co.

Flood LightingGeneral Electric Co.
National X-Ray Reflector Co.**Friction, Tape and Cloths**

Johns-Manville Co., H. W.

FusesBerry, A. Hall
Chicago Fuse Mfg. Co.
Condit Electrical Mfg. Co.
D. & W. Fuse Co.
Electric Sales Co.
General Electric Co.
Johns-Manville Co., H. W.
Osterhout Electric Co.
Pierce Fuse Corporation
U. S. Rubber Co.
Western Electric Co.
Westinghouse Elec. & Mfg. Co.**Glassware, Lighting**Bayley & Sons, Inc.
Consolidated Lamp & Glass Co.
Ivanhoe-Regent Works
McFaddin & Co., H. G.**Grills & Table Stoves, Electric**

Landers, Frary & Clark

Grinders, ElectricBlack & Decker Mfg. Co.
General Electric Co.**Hair Dryers**National X-Ray Reflector Co.
Mineralac Electric Co.
Shelton Electric Co.**Headlights**

Crouse-Hinds Co.

Heater CordBerry, A. Hall
D. & W. Fuse Co.
General Electric Co.
Independent Lamp & Wire Co.
Rome Wire Co.
Simplex Electric Heating Co.**Heating Appliances, Household**American Electrical Heater Co.
Cutler-Hammer Mfg. Co.
Edison Electric Appliance Co.
Landers, Frary & Clark
Satisfaction Guaranteed
Simplex Electric Heating Co.
Western Electric Co.
Westinghouse El. & Mfg. Co.**Heating Devices, Electric**Amer. Elec. Heater Co.
Berry A. Hall
Edison Electric Appliance Co.
Estate Stove Company, The
General Electric Co.
Landers, Frary & Clark
Majestic Electric Development Co.
Maxim Elec. Corp.
Simplex Electric Heating Co.**Heating Pads & Blankets**

Landers, Frary & Clark

Insulating MaterialsCutler-Hammer Mfg. Co., The
General Electric Co.
Johns-Manville Co., H. W.
Westinghouse El. & Mfg. Co.**Insulating Paper**

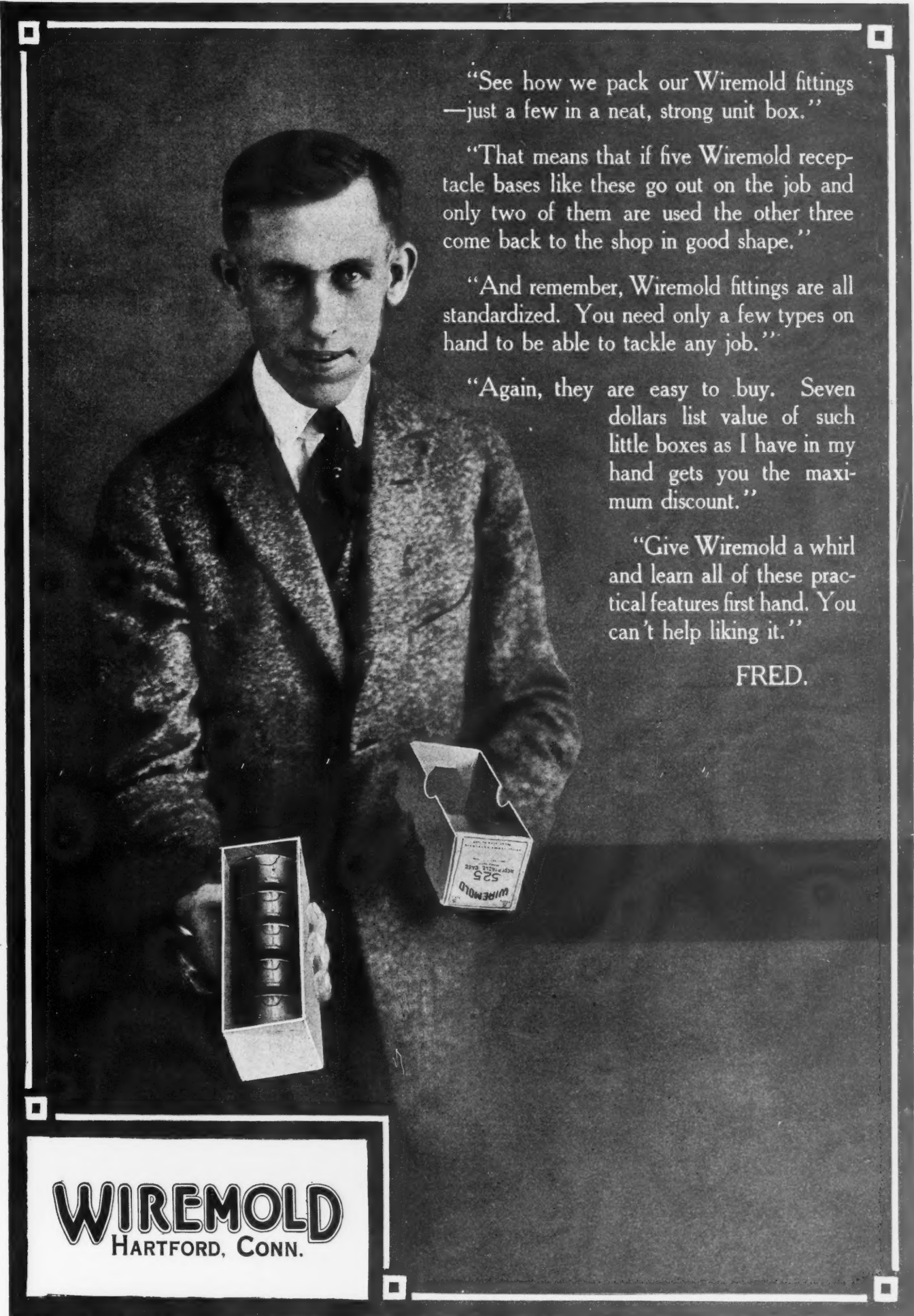
Johns-Manville Co., H. W.

Insulation, MoldedJohns-Manville Co., H. W.
Walsh Electrical Supply Co.**Insulators, Switchboard**General Electric Co.
Philadelphia Electric Company,
Supply Dept.**Ironing Machines, Electric**American Ironing Mach. Co.
Apex Appliance Co.
Hurley Machine Co.
Keystone Iron Machine Co.**Irons, Curling, Electric**

Landers, Frary & Clark

Irons, ElectricAmerican Elec. Heater Co.
American Ironing Machine Co.
Cutler-Hammer Mfg. Co., The
Edison Electric Appliance Co.
Philadelphia Electric Company,
Supply Dept.
Reimers Mfg. Co.
Satisfaction Guaranteed
Simplex Electric Heating Co.
Western Electric Co.
Westinghouse El. & Mfg. Co.**Jobbers**Alpha Electric Co.
Bailes Supply Co.
Buchanan & Co., J. F.
Doubleday-Hill Electric Co.
Electric Supply Co.
Erner Electric Co.
Great Lakes Electric Co.
Jones-Beach & Co.
Knowlson Co., A. T.
Latham, E. B.
Milner Flower Electric
National Electrical Supply Co.
Newark Electrical Supply Co.
Pacific States Elec. Co.
Philadelphia Electric Company,
Supply Dept.
Piedmont Elec. Co.
Schimmel Electric Supply Co.
Southern Electric Co.
Stewart Electric Co., F. H.
Tri-City Electric Co.
Woodward, Wright & Co.

(Continued on page 170)

A black and white photograph of a man in a dark suit, white shirt, and dark tie. He is holding two small, rectangular boxes of Wiremold fittings. The box in his right hand is open, showing several cylindrical fittings stacked inside. The box in his left hand is also open, showing a single fitting. The background is dark and textured.

"See how we pack our Wiremold fittings—just a few in a neat, strong unit box."

"That means that if five Wiremold receptacle bases like these go out on the job and only two of them are used the other three come back to the shop in good shape."

"And remember, Wiremold fittings are all standardized. You need only a few types on hand to be able to tackle any job."

"Again, they are easy to buy. Seven dollars list value of such little boxes as I have in my hand gets you the maximum discount."

"Give Wiremold a whirl and learn all of these practical features first hand. You can't help liking it."

FRED.

WIREMOLD
HARTFORD, CONN.

WHAT AND WHERE TO BUY

Electrical Appliances and Supplies Advertised in This Issue with
Names of Manufacturers and Distributors

(Continued from page 168)

Lamp Cord

General Electric Co.
Rome Wire Co.
United States Rubber Co.

Lamp Guards & Locks

General Electric Co.
Hubbell, Inc., Harvey
Pass & Seymour, Inc.

Lamps, Arc

General Electric Co.
Mannweiler Co., Inc., A. C.
Westinghouse El. & Mfg. Co.

Lamps, Automobile

Independent Lamp & Wire Co.

Lamps, Desk

Beers Sales Co.
McFaddin & Co., H. G.
Pittsburgh Lamp, Brass & Gl. Co.

Lamps, Incandescent

Boston-Economy Lamp Division
Consolidated Lamp & Glass Co.
Edison Lamp Works
Franklin Incandescent Lamp Wks.
General Electric Co.
Hygrade Lamp Co.
Independent Lamp & Wire Co.
Lord Mfg. Co.
Safety Electric Co.
Westinghouse Lamp Co.

Lamps, Miniature

Mannweiler Co., Inc., A. C.

Lamps, Portable

Beers Sales Co.

Lighting, Industrial

Adams Bagnall Electric Co.
Benjamin Electric Mfg. Co.
Cutter Co., George
General Electric Co.
Ivanhoe Regent Works
Livingston & Co., J.
Luminous Specialty Co.
Peerless Light Co.
Plant & Co., L.
Shapiro & Aronson

Lighting, Stage and Theater

Universal Elec. Stage Lighting Co.

Lighting Units

Adams Bagnall Electric Co.
Beardslee Chandelier Mfg. Co.
Consolidated Lamp & Glass Co.
Duplex Lighting Works
General Electric Co.
General Gas Light Co.
Ivanhoe Regent Works
Livingston & Co., J.
Luminous Specialty Co.
Peerless Light Co.
Plant & Co., L.
Shapiro & Aronson

Marine Lighting Fixtures

Appleton Electric Co.

Mills, Coffee, Motor Driven

Landers, Frary & Clark

Miscellaneous

Cleveland Plain Dealer
Electrical Supply Jobbers Assn.
Hubbell, Inc., Harvey
Quality Group
Landers, Frary & Clark

Motors

Century Electric Co.
Dayton Fan & Motor Co.
Domestic Electric Co.
Dyneto Electric Corp.
Ellington Co.
Emerson Electric Mfg. Co.
General Electric Co.
Reynolds Electric Co.
Robbins & Myers Co., The
Sprague Electric Works
Western Electric Co.
Westinghouse El. & Mfg. Co.

Outlets, Fan Hanger

Adam Electric Co. (Frank)

Panel-boards

Benjamin Electric Mfg. Co.
Cutter Co., George
General Electric Co.
Trumbull Elec. Mfg. Co.
Westinghouse El. & Mfg. Co.

Percolators, Electric

Landers, Frary & Clark

Pipe Benders

Martin & Sons, H. P.

Plants, Light & Power—See Farm

Lighting Plants
Delta Star Electric Co.

Plugs, Attachment and Caps

Benjamin Electric Mfg. Co.
Bryant Electric Co.
Condit Electrical Mfg. Co.
Cutler-Hammer Mfg. Co.
General Electric Co.
Hart & Hegeman
Hubbell, Inc., Harvey
Pass & Seymour, Inc.
Trumbull Elec. Mfg. Co.
Walsh Electrical Supply Co.

Plugs, Fuse

Hubbell, Inc., Harvey
Hart & Hegeman Mfg. Co.

Projectors, Electric

Berry, A. Hall
Cutter Co., George
General Electric Co.
Grether Fire Equip. Co.
National X-Ray Reflector Co.
Philadelphia Electric Company,
Supply Dept.

Protective Devices

Benjamin Electric Mfg. Co.
General Electric Co.
Philadelphia Electric Company,
Supply Dept.

Pull Sockets

Hubbell, Inc., Harvey
Hart & Hegeman Mfg. Co.

Pumps, Motor Driven

Burnett-Larsh Mfg. Co.
Ft. Wayne Engineering & Mfg. Co.
General Electric Co.

Push Buttons

Benjamin Electric Mfg. Co.
Edwards & Co.
General Electric Co.

Radio Apparatus

Remler Radio Mfg. Co.

Radium Compound Specialties

Plaut & Co., L.

Ranges, Electric

Edison Electric Appliance Co.
Landers, Frary & Clark
Rathbone, Said Electric Co., Inc.
Western Electric Co.
Westinghouse El. & Mfg. Co.

Receptacles Base Board & Wall

Adam Electric Co., Frank
Hubbell, Inc., Harvey
Hart & Hegeman Mfg. Co.
General Electric Co.
Hart & Hegeman

Receptacles, (See Sockets and Recep-

tacles)
Benjamin Electric Mfg. Co.
Hubbell, Inc., Harvey

Reflectors

Adams Bagnall Electric
Benjamin Electric Mfg. Co.
Cutter Co., George
Frank, I. P.
General Electric Co.
Hubbell, Inc., Harvey
Ivanhoe-Regent Works
National X-Ray Reflector Co.

Refrigerating Machines

Johns-Manville Co., H. W.

Registers, Cash

National Cash Register Co.

Relays, Reverse Phase

General Electric Co.
Philadelphia Electric Company
Supply Dept.

Resistance Units

Cutler-Hammer Mfg. Co.
Edison Electric Appliance Co.
General Electric Co.
Westinghouse El. & Mfg. Co.

Rheostats

Cutler-Hammer Mfg. Co.
General Electric Co.
Westinghouse El. & Mfg. Co.

Rosettes

General Electric Co.
Hart & Hegeman Mfg. Co.
Hubbell, Inc., Harvey
Pass & Seymour, Inc.
Trumbull Electric Mfg. Co.

Screw Holes

Stine Screw Holes Co.

Scrubbing and Polishing Machines,

Floor

Herr Mfg. Co., John

Searchlights—See Projectors, Electric

Sets, Motor-Generator

General Electric Co.
Robbins & Myers Co., The
Universal Motor Co.

Sewing Machines, Portable Electric

Edison Electric Appliance Co.
Western Electric Co.

Shade Holders

Adams Bagnall Electric Co.
General Electric Co.
Hart & Hegeman Mfg. Co.
Hubbell, Inc., Harvey

Shades & Reflectors

Hubbell, Inc., Harvey

Signs, Electric

Cutter Co., George
Frank, I. P.

Sockets and Receptacles (See also

Pull Sockets)

Arrow Electric Co.
Ajax Electric Specialty Co.
Benjamin Electric Mfg. Co.
Bryant Electric Co.
Cutler-Hammer Mfg. Co.
Cutter Co., George
General Electric Co.
Hart & Hegeman Mfg. Co.
Hubbell, Inc., Harvey
Pass & Seymour, Inc.
Trumbull Electric Mfg. Co.

Solder & Soldering Compounds

Chicago Solder Co.

Stage Lighting Apparatus

General Electric Co.
Universal Electric Stage Lighting
Co.

Starters, Motor

Cutler-Hammer Mfg. Co.
Dyneto Electric Co.
General Electric Co.

Stoves, Cook, Electric

Landers, Frary & Clark
Red Top Electric Co.
Standard Stamping Co.

Supplies, Wiring, Electric

Johns-Manville Co., H. W.
Hart & Hegeman Mfg. Co.

Switchboards

Crouse-Hinds Co.
General Electric Co.
Trumbull Elec. Mfg. Co.
Western Electric Co.
Westinghouse El. & Mfg. Co.

Switches

Berry, A. Hall
Cutler-Hammer Mfg. Co.
Cutter Co. (George)
General Electric Co.
Hart & Hegeman Mfg. Co.
Hubbell, Inc., Harvey
Pass & Seymour, Inc.
Philadelphia Electric Company
Supply Dept.
Trumbull Elec. Mfg. Co.
Westinghouse El. & Mfg. Co.

Switches, Snap and Push

Arrow Electric Co., The
Bryant Elec. Co.
General Electric Co.
Hart & Hegeman Mfg. Co.
Harvey, Inc., Hubbell
Trumbull Elec. Mfg. Co.

Table Appliances, Electric

Landers, Frary & Clark

Testing Equipment

Whitall Eng. Co.

Testing Laboratories

Electrical Testing Laboratories

Theater Dimmers

Cutler-Hammer Mfg. Co.
General Electric Co.

Toasters, Electric

Landers, Frary & Clark

Tollet Specialties, Electric

Contra-pole Electric Co.
Sterling Electrical Corp.

Tools, Contractor's

Western Electric Co.
Westinghouse El. & Mfg. Co.

Transformers

General Electric Co.
Westinghouse El. & Mfg. Co.

Transformers, Bell Ringing

General Electric Co.
Killark Electric Mfg. Co.
Peerless Light Co.

Vacuum Cleaners, Electric

Air-Way Co.
Apex Electrical Distributing Co.
Clements Mfg. Co.
Eureka Vacuum Cleaner Co.
Geier Co., P. A.
Hoover Suction Sweeper Co.
Hurley Machine Co.
Landers, Frary & Clark
Pneuvac Co.
Ramey Mfg. Co.
Regina Co.
Torrington Co., The
United Electric Co.
Western Electric Co.
Wise McClung Mfg. Co.

Vibrators, Electric

Branson Co., Chas. A.
Shelton Electric Co.

Violet Ray Specialties

Bleaden-Dunn Co.
Branson Co., Chas., A.
Contra-pole Electric Co.
Sterling Electrical Corp.

Wall Receptacles

General Electric Co.
Hubbell, Inc., Harvey

Washing Machines, Clothes, Electric

Altorfer Bros.
American Gas Machine Co., Inc.
Apex Appliance Co.
Automatic Electric Washer Co.
Blue Bird Appliance Co.
Buckeye Churn Co.
Coffield Motor Washer Co., The
Crystal Washing Machine Co.
Federal Electric Co.
Geyser Electric Co.
Haag Bros. Co.
Hurley Machine Co.
Lanndryette Mfg. Co.
Modern Laundry Machine Co.
Nineteen Hundred Washer Co.
One Minute Mfg. Co.
Pittsburgh Gage & Supply Co.
Suff Manufacturing Co.
Wayne Mfg. Co.
Western Electric Co.
White Lily Mfg. Co.
Woodrow Mfg. Co.

Washing Machines, Dish, Electric

Western Electric Co.
Wolcott Mfg. Co.

Water Heaters, Electric

Landers, Frary & Clark

Wire, Magnet

Berry, A. Hall
D. & W. Fuse Co.
Independent Lamp & Wire Co.
Rome Wire Co.

Wires and Cable

A. A. Wire Co.
D. & W. Fuse Co.
Electric Cable Co.
General Electric Co.
Independent Lamp & Wire Co.
Rome Wire Co.
Sprague Electric Works
U. S. Rubber Co.

Wireless Apparatus—See Radio

More DAYLO Customers for January

A NEW and unusually large supply of Daylo purchasers for January is in preparation. They will be ready for delivery to your door January first, guaranteed ready to push their dollars over your counter.

Daylo magazine advertising for January and February will create a big market for Daylo and Tungsten Batteries among the industries of the entire country.

Right around you there are factories and workers who will be ready to buy Daylo goods in quantities or singly. They can be brought to your store if you will join with us in this campaign by making a suitable display with materials which we supply free of charge.

All you have to do is to join the Ever Ready Team Workers. Use the coupon below to find out the details. Act now so as to get in on the January drive.

AMERICAN EVER READY WORKS

307 Thompson Avenue, Long Island City, New York

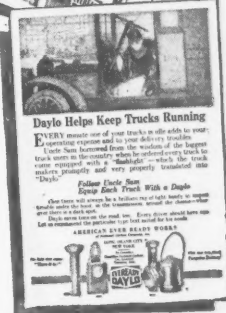
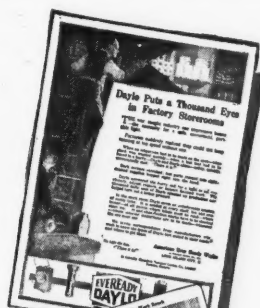
Please send me, without obligation on my part, full information about the Ever Ready Team Work Plan by which I can participate in the sales resulting from your Daylo market development campaigns.

Name.....

Address.....

City..... State.....

(Please tell us if you already handle the Daylo line).....



SOUTHERN ELECTRIC CO.

will ship you

THOR Washing and Ironing Machines

Immediately from Baltimore Stock



YOUR customers have returned from their vacations and now is the proper time to submit your washing machine proposition to them.

We are distributors for the Hurley line, which is the oldest and best known on the market and is fully guaranteed.

Mail us your orders and we will guarantee immediate shipments from our large Baltimore stock.

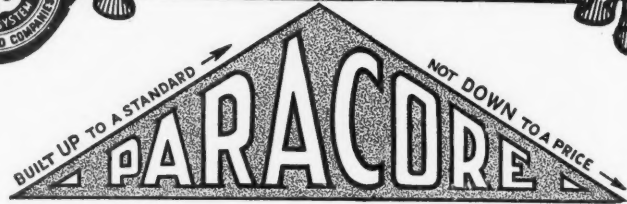
Also Distributors for G-E Products.

SOUTHERN ELECTRIC CO.

Distributing Jobbers

Baltimore, Md.

"Southern Service Satisfies"



INSULATED WIRE AND CABLE

The United States Rubber Company, in its National India Rubber Company plant at Bristol, R. I., manufactures a complete line of insulated wires and cable. The illustration shows a portion of our stock of copper rods all ready for the first process in drawing.

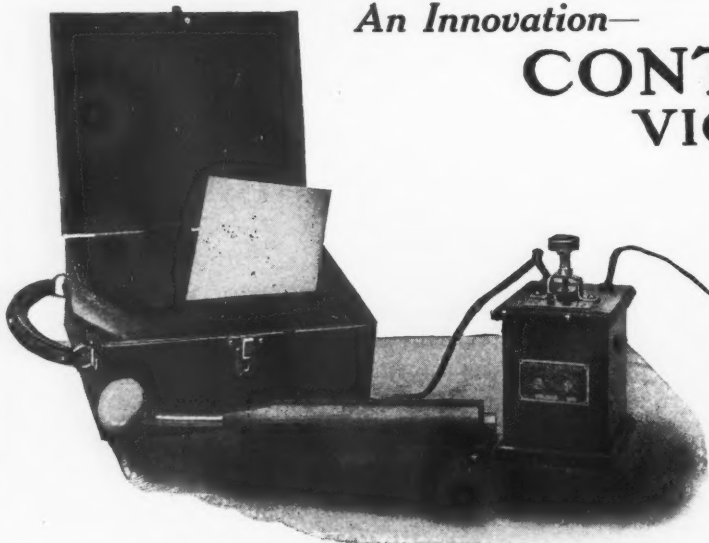
BRANCH OFFICES AND WAREHOUSES:

Boston	Detroit	Salt Lake City
Chicago	Seattle	San Francisco
Denver	Los Angeles	New York

United States Rubber Company Wire Division

An Innovation—

CONTRA-POLE VIOLET Ray



DEALERS—Here is your opportunity to stock VIOLET-RAY GENERATORS with full confidence that they will be sold through the Trade ONLY. We do not sell direct to the consumer, as policy practiced in the past by other manufacturers of Violet Ray apparatus.

Contra-Pole High Frequency Apparatus for Universal Current with Carrying Case and Large Surface Electrode, List No. 500. Shipping weight Seven Pounds. Price \$30.

We make apparatus that will stand up on any commercial current due to its construction and to the elimination of paper condensers (as used by others). We use a mica condenser. Our machines are in a class by themselves, to which we are confident you will agree after looking over and trying the Contra-Pole. Our Distributor in your territory will be pleased to go into this matter with you on request. Drop us a card and we will have him get in touch with you.

CONTRA-POLE ELECTRIC CO., Inc.

New York

Chicago

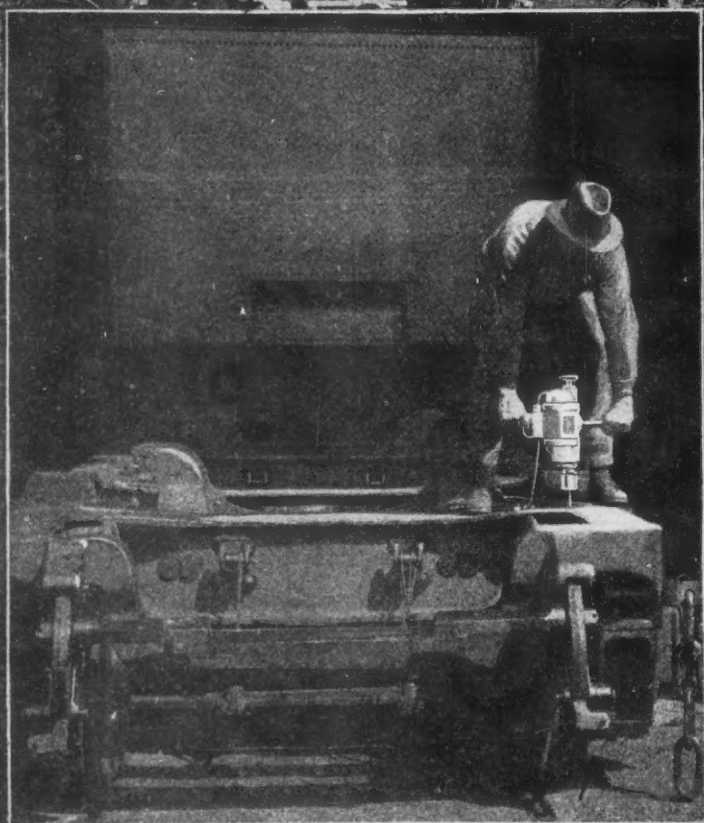
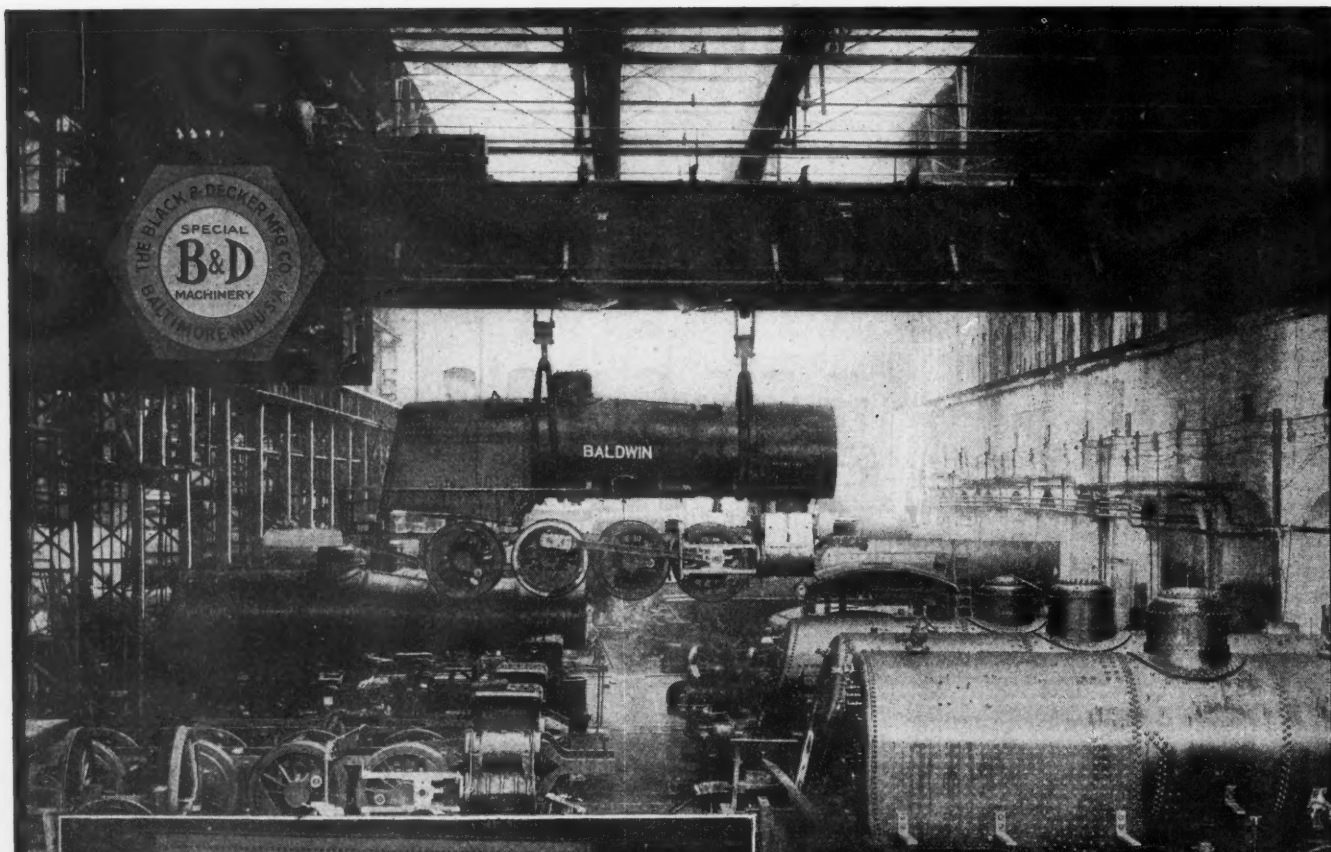
Factory: 1227-41 Prospect Place, Brooklyn, N. Y.
"The Coil Whose Promise is its Performance"



Contra-Pole Apparatus No. 504, for Universal Current. List Price \$25.00.

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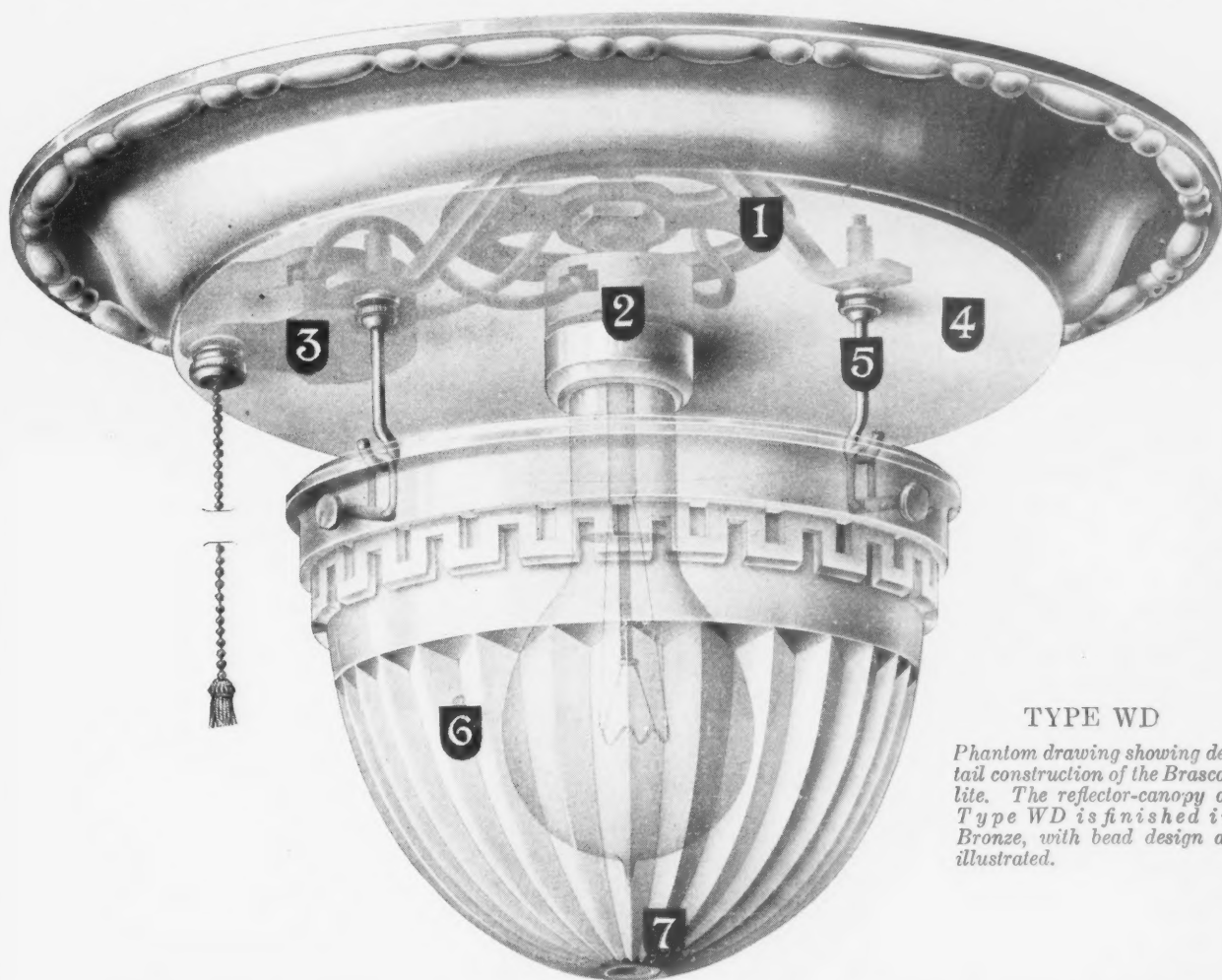
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Phantom drawing showing detail construction of the Brascolite. The reflector-canopy of Type WD is finished in Bronze, with bead design as illustrated.

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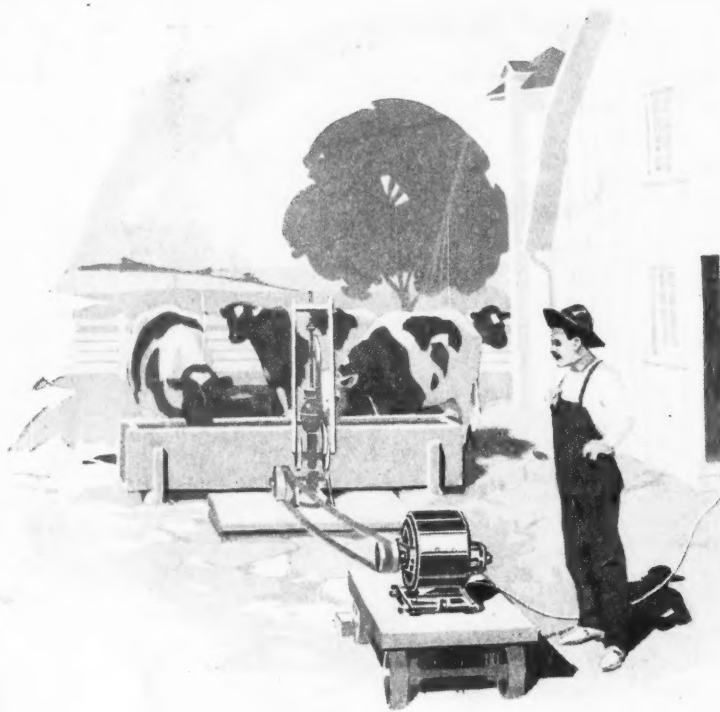
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